

The Challenges Facing Agricultural Extension from the Viewpoint of Agricultural Officers in Pakistan

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ABSTRACT

Agriculture extension services in Pakistan are perceived as ineffective for many reasons. Limited research has been conducted so far in Pakistan to find those reasons. This study was conducted to consolidate different factors impeding the performance of Agriculture Officers (AOs), who are the change agents and most important pillar of extension system in Punjab, Pakistan. This study employed 348 randomly selected AOs working in Punjab Province. The main research question levelled was that why the work of AOs is perceived ineffective and how it can be mainstreamed. This study was qualitative in nature with probability sample and external validity. Data were collected qualitatively and analyzed using *thematic analysis technique*. Empirically, we identify and discuss a number of notable and explanatory themes affecting the performance of AOs such as “fractional support from the government”, “confused working environment”, “advisory services techniques and physical environment”, “organizational capacity and professional growth”, and “partnership and linkages issues”. The findings highlight a deep insight into how AOs struggle for their survival and meeting hefty targets with fractional facilitation. This paper also provides a generalization of the results and brief recommendations to be considered to revamp extension services in Pakistan and Asian countries, and initiate transnational linkages to restore the grace agricultural extension.

Keywords: Advisory services, Extension services, Thematic analysis technique.

INTRODUCTION

The population of Pakistan is increasing double as to food production. Achieving agricultural growth to meet food requirement is obligatory. Agricultural extension service is one of the key contributors along with research institutions in this regard. Agricultural extension links farmers with the agricultural innovations and providing farmers with easy access to technologies, technical backstopping, information and the motivation in order to adopt innovations to expedite their farm productivity (Bajwa *et al.*, 2008). From the beginning of the 1960s and end of the last

century, agriculture in Pakistan witnessed 4% escalation. Technological upsurge, development of high yielding varieties, investment in irrigation networks and physical infrastructure, and synergistic work of research and extension were the key enablers of escalated agricultural growth (Ali and Iqbal, 2005). It is worth mentioning that the extension sector had played a vital role in upskilling farmers and helping them to understand and adopt modern technologies in order to increase production and make agriculture globally competitive. Role of agricultural extension in sustainable agriculture development is well addressed around the world such as Ethiopia

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(Gebrehiwot, 2017), Bangladesh (Haq *et al.* 2003; Haq *et al.*, 2013), Zimbabwe (Owens *et al.* 2001), Malawi (Kilic *et al.*, 2013; Ragasa *et al.*, 2016), Sri Lanka (Walisinghe *et al.*, 2017), India (Ferroni and Zhou, 2012), China (Muddassir and Naseer, 2017; Kaegi, 2015).

History of Agriculture Extension in Pakistan

In Pakistan, extension services were evolved under Community Development programs when Village and Agriculture Industrial Development Program (Village AID) was implemented in 1952. Ford Foundation and United Agency for International Development (USAID) funded the V-AID (Horton, 1958) in order to meet the felt needs of the community through inclusive participation of local elite in program planning of development projects. Another modality Basic Democracy (BD) replaced V-AID in 1959 to build synergy between the local community and public officer bearers of the country for public welfare. Pakistan Academy for Rural Development (PARAD) led Rural Works Program (RWP) replaced BD System in 1961, realizing agricultural cooperatives, women educational programs, irrigation programs, and thana (police station) programs were for the public welfare (Stevens *et al.*, 1976). In 1961, a separate department of the extension was formed in Pakistan as a curator and facilitator of the farming community in particular. In 1972, the People Works Program (PWP) was implemented for solidarity between rural and urban development work through the involvement of local people in the development framework (Government of the Punjab, 1983). Village and Mohalla were declared as organizing units to mainstream public welfare affairs (Malla, 1997). Integrated Rural Development Programs (IRDP) became the successor to PWP (Government of Punjab, 1983). The uplifting rural life through coordination between the

public sector and the local elite was a major strength of IRDP. IRDP envisioned escalation in agricultural growth through adoption of modern technique, intensified farm management, provision of credit to small and medium farmers, enabling storage facilities, and effective transportation and structured marketing system (Shah and Baporikar, 2010). During 1978, Pakistan witnessed the implementation of the Training and Visit System (T and V) approach funded by the World Bank. The triangular relationship between research, extension and farmers was the supreme philosophy of the system (Abbas *et al.*, 2009). Extension field staff was actively linked with the research department to carry innovations to the farmers to expedite on-farm production. Extension field staff followed a stringed schedule of field activities under the T and V system (Benor *et al.*, 1984). The need for improvement in farm production and achieving food sufficiency, Pakistan experimented Decentralized Extension System in 2001 (Government of Pakistan, 2004). Agriculture extension was kept under District Government. Operations of sister organizations such as livestock, soil conservation, water management and forestry were administered by Executive District Officer of Agriculture (EDO). Designation of Deputy Director Agriculture (DDA) was changed to District Officer Agriculture (DOA) who was subordinate to EDO. The EDO was destined to report to District Coordination Officer (DCO) who was further accountable to locally elected District Nazim. DOA and Deputy District Officer of Agriculture (DDOA) at posted on district and tehsil (sub-district) levels, respectively, had assistance to EDO, whereas Agriculture Officer (AO) and Field Assistant (FA) performed duties at Markaz and Union Council level, respectively (Malik, 2003). The decentralization program was terminated in 2017 and, since then, the extension services have observed a modification in its working structure. It can be concluded here that various modalities

were implemented between 1952-2018 and all left meagre impact behind. The various weaknesses such as sluggish coordination, departmental jealousies, political interference, misuse of funds, financial obstructions, and lack of involvement of local people in program planning (Ashraf *et al.*, 2019).

Current Agriculture Extension System

Currently, provincial-level extension setup is operational in Pakistan. Secretary of Agriculture is the provincial head of the department to lead the agriculture department well inline to objectives set by the government. Director-General of Agriculture (Extension and Adaptive Research) is the leader of the agricultural extension department, in particular on province level. In Punjab, a province of Pakistan, Director of Agriculture (extension), Deputy Director of Agriculture (extension) and Assistant Director of Agriculture (extension) are discharging their duties on Division, District, and tehsil (sub-district) level, respectively. Agriculture Officer (AO) is serving on Markaz level. Field Assistants are deployed on Union Council level in order to assist AO for technical backstopping to farmers. AO is the change agent and the most important pillar of the extension system. Basic criteria for the recruitment in BPS-17[Basic Pay Scale Structure (BPS) is widely used pay scale system for Government Servants in Pakistan] of AO is having minimum qualification of B.Sc. (Hons.) in agriculture from any established university in Pakistan. AO is appointed in Markaz [In a local government, administration union council (UC) is the lowest tier. About 4-6 UCs combine to form a Markaz consisting of more or less 10,000 populations. 2-5 markaz depending on population form a tehsil and then different number of tehsils make a district.] level. The major responsibilities of the AOs include submission of reports pertaining to the crops of his/her jurisdiction

to higher-ups, analysis of data on different crops, field surveys, and conducting a farmers training program, assessment of crops, technical backstopping to farmers, and any of the special duties assigned by the controlling authority.

In Pakistan, the extension is striving for profitable farming, however, the role of extension in this regard has not been fully oppressed (Baig *et al.*, 2009). Agricultural extension in Pakistan is criticized pertaining to numerous obstacles such as biased services (Davidson, 2001), ignorance to small farmers (Bajwa, 2004), non-participation of local people in program planning (Khan, 2006), traditional mode of working (Burton *et al.*, 2012), autocratic approach (Farooq and Ishaq, 2005), weak linkage between research and extension department (Luqman *et al.*, 2013), limited funds (Bajwa, 2004) and involvement of extension staff in irrelevant tasks (Shahbaz and Ali, 2011). However, studies are limited to critically examine the effectiveness of extension services in Pakistan. The research studies published in scholarly articles are nominal and few in numbers laid down with the traditional approach. The studies published are quantitative in nature and have had a small sample size putting some questions on a generalization of findings. Furthermore, the studies were mainly based on farmers' perception to conclude extension service effectively or ineffective. A couple of studies such as Abbas *et al.* (2009) Baig and Aldosari (2013), Shahbaz and Atta (2014), Yaseen *et al.* (2015) and Baloch and Thapa (2017) were review-based studies lacked in diversity opting traditional methodological approach and portrayed almost identical findings. A couple of quantitative studies such as Khan *et al.* (2008), Ashraf *et al.* (2009), Khan *et al.* (2012) have been conducted so far entailing extension field staff as respondents. However, the studies had limited scope as the small size of the sample was refrained and studies were conducted on a local level. Extension service is inevitable for agricultural growth and, in order to expedite



extension services, extended facilitation to the field staff is obligatory. If the issues and problems faced by the agricultural extension personnel are not highlighted, a proper solution wouldn't be realized. Existing studies did not come up with the policy brief and the key areas need to be improved to maintain a huge research gap on the subject.

Linking farmers with the market, increasing farm production, technology transfer, poverty reduction, knowledge diffusion, motivation to farmers, educational activities, need assessment of the farmers and crop diversifications are some major targets of the extension to meet and deal with (Sulaiman *et al.*, 2006; Swanson, 2006). These targets change with the changing time and to control these changes adequate abilities in extension staff are mandatory. Chaudhry (1972) highlighted that extension: farmers ratio was adequate but the extension staff was not appropriately trained to deal with farmers. Effective in-service training would have made their work effective. Currently, the extension: farmer ratio has widely increased and considered as one of the leading obstacles in extension work (Shahbaz and Atta, 2014). Various research studies have revealed those factors making extension services ineffective for the farmers. For this study, all studies probing the effectiveness of extension services in Pakistan were critically examined. Farmers were not acquainted with agricultural extension agents of their areas (Ahmad, 1992). Extension services were perceived biased towards progressive, large, and educated farmers (Davidson *et al.*, 2001; Ahmad *et al.*, 2007; Khan and Akram, 2012; Luqman *et al.*, 2018). Farmers perceived limited access to extension workers and inadequate visits paid by the staff in order to facilitate farmers (Ahmad *et al.*, 2007). Iqbal *et al.* (2016) concluded that farmers had limited access to public sector extension service pertinent to structural and governance issues persisting in the department. The department and staff lack in devotion, motivation, and sense of responsibility. There are partially operative monitoring and evaluation systems in the extension

department (Jan *et al.*, 2008). It is of great worth to state that many of the modalities of extension implemented in the past were terminated without any evaluation (Ashraf *et al.*, 2019). Abbas *et al.* (2009) Baig and Aldosari (2013), Shehbaz and Atta (2014), Yaseen *et al.* (2015), and Baloch and Thapa (2017) reviewed extension services performance in Pakistan. However, these studies were review based and had some identical findings. These studies had summarized that inadequate incentives, inadequate funds, limited resources, insufficient training for the staff, higher extension staff to farmer ratio, poor coordination within department, unprofessional approach and large jurisdiction area for extension field staff were the key challenges turning extension service unproductive. Few more studies such as Khan *et al.* (2008) and Farooq *et al.* (2010) had reported that extension field staff had an extensive workload followed by numerous additional duties while there was no rewards and incentives for the staff. Extension staff is not enriched by the latest knowledge, training, resources and had communication problems pertaining to persisting illiteracy among farmers. Pertaining to poor support mechanism for extension staff they are anticipated as incompetent. Khan *et al.* (2012) reported that agriculture officers were poorly trained and had limited skills in order to facilitate farmers on their technical issues.

Therefore, this study was planned to underpin the ground reasons behind ineffectiveness and how these services can be improved. This paper is a policy brief entailing qualitative approach and in-depth interviews of the Agriculture Officers who are front line workers. The main objective of this study was to explore the factors that are affecting the performance of agricultural extension staff in Punjab, Pakistan.

MATERIALS AND METHODS

Our study was qualitative in nature and interpretive framework was employed. Data

collection process took 10 months in 2018-2019. For the selection of respondents, a simple random sampling technique was used. This technique allows an equal opportunity for respondents to be selected as a respondent. Use of random sampling alleviates the biases as well.

Punjab, the leading province of Pakistan in terms of agriculture, comprises 36 districts. Punjab province has an extensive set up of agricultural extension services. Considering the nature and significance of this study, a plan was made to select AOs from each district in Punjab. A total of 763 AOs working in Punjab [Sources from PowerPoint presentation made by the Pakistan Agricultural Research Council (March, 2011) in the roundtable discussion on Agriculture and Water, organized by the Planning Commission, USAID, the Embassy of Netherland and the World Bank. Further details can be seen by visiting www.g-fras.org/en/world-wide-extension-study/92-world-wide-extension-study/asia/south-asia/315-pakistan.html.]

province, served as the population for the study. From each district, 10 AOs were selected at random thereby making a total sample size of 360 respondents. Data were collected through open-ended questionnaire. Questionnaires were sent through the mail to the selected respondents with the follow-up telephone calls. Respondents were asked to give an answer in detail of the question "which factors are hampering their performance". Of the total questionnaires, 352 were received back. The questionnaires received were critically reviewed by the researchers and 4 questionnaires were inadequately filled thus sample size was reduced to 348. The data were then categorized and analyzed thematically.

Thematic analysis was used to analyze the collected data. The thematic analysis approach is the globally accepted approach for interpretive investigations. Thematic analysis technique is widely used in qualitative studies (Braun and Clarke, 2006; Miles and Huberman, 1994). Thematic analysis is an effective technique in order to examine the perspectives of different participants of the research and unveiling the similarities and dissimilarities (King, 2004). Thematic analysis approach involved specific steps including: (1) Getting familiarity with the data through thorough reading and re-reading filled questionnaires,

(2) Categorizing and coding the material, (3) Identifying themes, (4) Identifying explanatory connections, and (5) Explaining the findings. Codes, Basic themes and organizing themes of this study are given in Table 1.

RESULTS

In this study, we found some factors impeding the performance of agriculture officers. We grouped different factors into 5 organizing themes i.e.: (1) Fractional support from government, (2) Working environment, (3) Advisory Services techniques and physical environment, (4) Organizational capacity and professional growth, and (5) Partnerships and linkages. We summarized that AOs are experts and motivated to serve effective advisory services but the confused environment within the department is not allowing them to explore their potential. Major findings extracted from the thoughts of AOs are elaborated under the organizing themes.

Agriculture extension service in Pakistan is a provincial chapter, thus the provincial government is responsible to facilitate this sector to meet farmers' needs and boost on-farm productivity. Majority of the respondents agreed that the department receives fractional support and facilitation from the government. One of the respondents stated;

"Being an extension worker, we are anticipated to rescue farmers from poverty.

But, we have had confused roles to play and a mammoth jurisdiction area to cover under limited resources. FAO recommends that the target audience for one extension worker should not exceed one thousand farm families, particularly in developing countries. On contrary, in Pakistan, one extension agent (agriculture officer) is appointed for more less ten thousand people. Public sector extension system in Pakistan is apparently weak, poorly governed, enjoying less facilitation and perceived unlikely technical. Therefore, private sector



Table 1. Codes, basic themes, and organizing themes.

Step 1: Codes	Step 2: Basic themes	Step 3: Organizing themes
Political influence	(1) Importance of Extension Advisory Services (EASs) is underestimated and allied departments are preferred	Fractional support from government
Nepotism		
Delayed recruitments	(2) Extension Field Staff is not provided with service structure. An officer is compelled to serve in same grade for more than 2 decades	
Inexperience	(3) Extension department embraces highest political influence and staff is advised to perform irrelevant tasks. Political victimization, transfer and posting is another barrier	
No appreciation		Confused working environment
No service structure	(4) Extension department is considered ineffective	
Non-technical political representation	(5) Extension staff is not involved in policy formulation and planning of projects	
Unaddressed issue of EFS	(6) Extension staff is involved in irrelevant duties (Other than extension activities)	
Lack of support from government	(7) Higher qualification, research skills, publications or any additional effort has no benefits	Advisory services techniques and physical environment
Confused roles	(8) Extension services are traditional in nature; mainly one way	
Poor coordination		
Miss-communication		
Weak linkages		Continued...
No mobility means		
Biasness		
Poor planning		
Over burden of duties		Continued...
Irrelevant duties		
No focus on research		
Scanty research activities/development		
Old offices/building	9) More focus is on use of ICTs in information delivery	Continued...
No internet facility in offices	(10) Staff position is weak. Extension to farmer ratio is massive	
No multimedia facility		
Stationary items are short		
Large jurisdiction area		Continued...
Limited staff position		
More focus on paper work		
More emphasize on ICTs		

Continue of Table 1. Codes, basic themes, and organizing themes.

Step 1: Codes	Step 2: Basic themes	Step 3: Organizing themes
No foreign trainings	(11) No system of appreciation, incentive and rewards	
Ineffective departmental trainings		
No induction trainings	(12) No system of professional growth, skills and competency development of EFS	
Weak monitoring and evaluation system		
No incentives and rewards	(13) Un-achievable goals are expected to be achieved without facilitation	Organizational capacity and professional growth
More output desired with zero facilitation		
Un-achievable targets		
sluggish promotion system		
Poor career growth		
Poor competencies and skills		
Poor collaboration	(14) No farmers based organizations	
No farmer organization		
No effective marketing	(15) Ground problems and need of farmers are unaddressed	
No role of EFS in developing education of farmers		
Network building	(16) Collaboration and coordination system is fragile	Partnership and linkages
Social learning		
EFS not motivated to conduct research		
Ground issues are not addressed		
Needs are ignored		



extension is deepening its roots and considerably perceived as more technical and effective among farmers. The private sector has adequate staff strength, vehicles, incentives, rewards, rapid promotions for staff and the follow up led directions as compared to the public sector extension, as more often AOs are retiring without promotions and being highly qualified (i.e. PhD. in agriculture) is of minimal worth.

One of the AOs, PhD. in agriculture spoke, PhD. allowance amounting 10,000 Pakistani Rupees (PKR) (60 US Dollars) is the only benefit that I got after awarding of PhD. degree. He further argued that potential of highly qualified staff is not fully exploited in the agriculture department.

During an informal discussion with respondents, it was observed they were under stress pertinent to complex policies and irrelevant tasking. They had frustration with the departmental victimization and indifferences being faced by the AOs. One of the AOs unveiled that;

"I joined the department in Basic Pay Scale (BPS)-17 and about to retire from my services in the same grade after working for 27 years. Whereas, my wife serving in the school education department is being awarded BS-19 after the same period of service. Interestingly, she might be retiring in BS-20. This difference is so painful and let me ask very gently, is justice being served to Agriculture Officers.

Pertaining to these differences, one AO stressed that there was an urgent need to improve and revamp extension department. A system to improve institutional capacity, officers' competencies, skills, worth, and acknowledgement. None of the institutes is formally operational to build professional abilities among newly recruited AOs. There is no trend for induction training, whereas the training imparted in different institutions are often irrelevant. One of the AOs who had served in the private sector prior to entry into the public sector apprised the skills development programs officiated in the private sector. He witnessed receiving vehicle, travelling expenses, huge

incentives, and recreational foreign tours upon achieving targets. Public sector extension misses these facilities while the few existing are biased. Agriculture Officers are kept involved in irrelevant duties particularly assigned by District Administration. The irrelevant duties refrain AOs to offer technical backstopping to the farmers. One respondent summarized that once educating the farmers was the essence of extension service but now the unavoidable obstacles, irrelevant duties, and unachievable targets have made us quantity oriented.

Integration of Information Communication Technologies (ICTs) deems to help out AOs to effectively disseminate information to the farmers. The rigorous record-keeping, reporting attendance, and producing pictures on a tablet PC has become our priority. According to the AOs, the Tablet PCs given to them just let the higher-ups monitor us. Indeed, it is not a source of facilitation for the farmers. The inception of tablets had no impact on the poor ratio between extension agents and farmers. One respondent stated that the use of Tablets defamed us among farmers. Whenever we visit farmers, at very first, we click a picture to produce on a tablet. Now, the people have started saying, they (agriculture officers) just came to us to capture pictures and mark their presence. *This indicated a poor conceptualization of ICTs in extension services.* The department would have partnered with notable agencies and review case studies of countries successful in the integration of ICTs in extension services. Ineffective integration of ICTs points weak linkages between extension and allied departments i.e. research. One Respondent commented;

Research-extension linkages in Pakistan are weak since the implementation of V-AID, first formal attempt for rural development. Each program implemented for community development in the country was failed and abandoned without evaluation and impact assessment, one after the other, and lack of coordination and collaboration among departments and poor

accountability system were the well-established reasons. This implies that since the implementation of Village AID programs in 1952 and abolishment of Devolution in 2018, extension department did not progress in strengthening linkages and initiating impact assessment programs in order to achieve goals and monitor progress and contribution of AOs in rural development.

DISCUSSION

Identification of the factors affecting agricultural extension performance in Pakistan as viewed by agricultural officers was the key research question of this study. The arguments made by AOs were studied qualitatively and analyzed through thematic analysis technique. In results, the experiences of respondents allowed us to build an informed account of the impact of different factors militating performance of AOs and the future prospects revamp agricultural extension system. Various farmers centered quantitative studies in Pakistan (Idrees, 1994; Urooba, 2001; Lodhi, 2003; Khan, 2003; Abbas *et al.*, 2009; Ali *et al.*, 2011; Ali *et al.*, 2009) have concluded that extension services in the country are ineffective and hardly are need-oriented. Agricultural officers' views in this regard are not examined in order to explore the basic facts. The conclusions made by these quantitative and narrowly scoped studies focused on behalf of farmers' perceptions had issues regarding generalization. Thus, in this study, the qualitative approach allowed us to explore the reasons behind the ineffectiveness of extension services in deep from experiences of AOs. This qualitative approach further allowed us to explore the sources of problems *viz.* institutional, managerial and practitioners related turning extension services ineffective. The findings show that AOs are confused and unclear about their roles, as the theme "confused working environment" suggested. AOs urge clarity of

their roles and right direction to be more effective. Involvement in irrelevant duties and assigned multiple duties refrain AOs to work in line to the philosophy of extension service. Ashraf *et al.* (2009) identified that due to extensive workload and involvement in irrelevant activities, work of extension staff was ineffective in Punjab Province, Pakistan.

Service structure was one of the leading constraints as perceived by AOs. Officers witnessed the retirement of many AOs in the same grade (BS-17) after serving the department for more than 25 years. In contrast, allied departments like research and livestock have a systematic structure for promotions. Unachievable targets equipped with poor planning. Lack of involvement of AOs in program planning, nepotism and political involvement was perceived influencing work of AOs and outcome of the agriculture department.

The findings also highlight the problems of organizational capacity and professional growth in Punjab, Pakistan. The system for AOs skill improvement and competency development is weak. There is no specific institution in Punjab envisioned for induction training to newly recruited AOs. Joining services without training put AOs to face multiple challenges in the execution of duties. Seasonal training imparted to AOs are insufficient, irrelevant, and partially effective due to its non-convincing contents and narrow scope. Various research studies (Ali *et al.*, 2009; Farooq *et al.*, 2010; Khan *et al.*, 2012) have reported that inadequate capacity and technical knowledge obstacle AOs to identify and meet the needs of the farmers. If we compare public sector extension with private sector extension, the system of training and skill development is stronger in the private sector extension. The training in the private sector is need-oriented, knowledge-centered, and equipped with handsome remuneration. In the public sector, AOs bear all expenses from their pockets and get reimbursement in the form of travelling and daily allowances after waiting for a long time. The culture of



foreign training for the AOs is merely a dream. The research sector is a technology-producing sector and can play a significant role in imparting training to the AOs, but the weak research-extension linkage is an obstacle indeed. Pertinent to weak research-extension linkage, farmers' information delivery by AOs to farmers were usually incomplete and ineffective to satisfy the farmer's needs (Talib *et al.*, 2017; Adeel *et al.*, 2017). The traditional approach adopted by AOs in order to facilitate farmers appeared as another constraint under the theme "Advisory Services techniques and physical environment". Rahim *et al.* (2003) augmented that mechanism of technology dissemination among farmers was outdated and sometimes biased towards progressive farmers in particular. However, it is well addressed that AOs are narrowly facilitated by the department to substantiate their efficiency. Despite limited resources, appreciation, incentives and rewards, AOs do sustain a commitment to facilitate farmers in line to their needs. Agriculture officers are striving to bring positive changes in farmers' attitudes but acknowledgement and empowerment on an institutional level could happen as enablers.

The results of this study can be useful for policy practitioners in Pakistan to initiate a conducive environment for AOs. This study distinctively specifies the experiences of serving AOs, thus within the context of the agricultural and developing countries, particularly in Asia, findings of this study have strong implications. More or less similar obstacles have been reported in different research studies while discharging extension advisory services in south Asian countries, particularly sharing borders with Pakistan. Weak research-extension linkages (Chapman, 1988) and inappropriate messages and infrequent visits paid by extension staff were perceived leading obstacles in India. Misuse of funds and element of corruption was found hampering the effectiveness of extension program in India (Asthana, 2008). Involvement of extension staff in irrelevant tasks and having

no mobility means to access farmers in far-flung areas were reported by Gunawarda and Chandrasiri (1981) in Sri Lanka. Extension system in China was ineffective in meeting the needs of farmers pertaining to inadequate investment and poorly rendered extension work through the unskilled team (Qijie and Chuanhong, 2008). In Bangladesh, inadequate cooperation and coordination and weak research-extension linkages were found lowering the effect of extension services. Bureaucratic involvement in extension services was reported higher in Bangladesh (Blair, 1978). Oladele and Sakagami (2004) reported that inappropriate strategies, poor administrative support, preference to large farmers over small farmers, poor involvement of local people in program planning, confused roles, and scanty budget-stressed extension programs were the leading challenges in extension services turmoil across Asia.

CONCLUSIONS

This study explored a deep insight into different constraints affecting the performance of agriculture officers. The research apprehended the interpretive accounts of AOs experience to unveil those reasons that are making their performance ineffective. The findings suggest that AOs are key mobiliser for farmers and expedite agricultural growth in order to alleviate poverty and achieve food security on domestic as well as national levels. We have tried to record the realistic factors that are hampering the working efficiency of AOs and by alleviating these constraints, work of AOs can be more productive. Findings accentuate the dearth of relevant literature in Pakistan addressing the challenges faced by AOs. This novel research levelled that AOs are not being facilitated in any way. AOs are confused about their roles. They have no career growth, rewards, awards and promotions to the next grade AOs are directed to expedite their performance without any roadmap and conducive

environment based on synergy. AOs are convinced that quality works have become quantity oriented. Farmers are losing their credibility from Agriculture Officers and turning to the private sector in order to access the required information and technical backstopping. This study concludes and urges an immediate revamping of the entire extension system functional in Punjab. AOs should be provided with all necessary facilitation and rewards to feel their worthiness. In the wake of being more productive, switching Agriculture Officer from Markaz level to Union council will improve the performance of AO. In addition, the participation of AOs should be ensured in program planning and policy formulation. This study would have strong implications over the country to revamp extension services. Whereas, findings will be equally important for the other countries like India, Sri Lanka, Bangladesh, and China, where a similar system of agricultural extension exists. Agricultural extension system and arrangements in the South Asian regions are alike in terms of its organization and conceptual framework (Sulaiman *et al.*, 2006).

Thus, future studies can be conducted following the same research questions in other provinces of Pakistan to establish a harmonized agricultural extension system in Pakistan. Future studies should also be a target to accumulate the suggestions of extension field staff consolidate ideas to make the extension services more effective. Another research question that can be focused in future studies is how to depoliticize agricultural extension services in Pakistan. Finally, this research gives a novel insight on factors affecting agriculture officer's performance in Punjab, Pakistan. However, it is important to understand the limitations of this research study due to time and resources constraints: this study was conducted in one province and the sample size was representative. This research also has a strength that the study is qualitative in nature with a probability sampling, so, it has

external validity. Thus, the findings of this research can be generalized to another context.

REFERENCES

1. Abbas, M., Lodhi, T. E., Aujla, K. M. and Saadullah, S. 2009. Agricultural Extension Programs in Punjab, Pakistan. *Pak. J. Life Soc. Sci.*, **7(1)**: 1-10.
2. Adeel, M., A., Siddiqui, B. N., Waqar-ul-Hassan, T., Adnan, R. and Shah, F. 2017. Working Efficiency of Extension Field Staff with Regards to Integrated Pest Management of Cotton in District DG Khan, Punjab, Pakistan. *J. Rural Dev. Agri.*, **2(1)**: 26-40.
3. Ahmad, M. 1992. Evaluation of the Working of Extension Field Staff for the Development of Farming Community. *Pak. J. Agri. Sci.*, **29(1)**: 40-2.
4. Ahmad, M., Akram, M., Rauf, R., Khan I. A. and Pervez, U. 2007. Interaction of Extension Worker with Farmers and Role of Radio and Television as Sources of Information in Technology Transfer: A Case Study of Four Villages of District Peshawar and Charsadda. *Sarhad J. Agric.*, **23(2)**: 515-518.
5. Ali, S. and Iqbal, M. 2005. Total Factor Productivity Growth and Agricultural Research and Extension: An Analysis of Pakistan's Agriculture, 1960-1996. *Pak. Dev. Rev.*, **44(4)**: 729-746.
6. Ali, S., Ahmad, M. and Ali, T. 2011. Strengths and Weaknesses of Various Information Delivery Methods Used by Private Agricultural Extension System in the Punjab. *Pak. J. Agri. Res.*, **49(2)**: 15-21.
7. Ali, S., Ahmad, M., Ali, T. and Shahzad, M. 2011. An Assessment of Professional Competencies Possessed by Extension Field Staff of Private Agricultural Extension System in Punjab, Pakistan. *Pak. J. Agri. Sci.*, **48(3)**: 217-220.
8. Ali, S., Ahmad, M., Ali, T. and Zafar, M. I. 2009. Analysis of Competencies Possessed by Field Staff of Private Agricultural Extension System in Punjab. *Pak. J. Agri. Res.*, **47(1)**: 101-106.
9. Ashraf, I., Muhammad, S., Mahmood, K., Idrees, M. and Shah, N. 2009. Strengths and Weaknesses of Extension System as



- Perceived by Extension Field Staff. *Sarhad J. Agric.*, **25**(1): 131-134.
10. Ashraf, S., Hassan. Z. Y. and Ashraf, I. 2019. Dynamics of Agricultural Extension Services in Pakistan: A History of National Performance. *J. Anim. Plant Sci.*, **29**(6): 1707-1717.
 11. Asthana, N.A. 2008. Decentralization and corruption; Evidence from Drinking Water Sector. *Pub. Admin. Dev.*, 28(3): 181-189.
 12. Baig, M. B., Al-Subaiee, F. S. and Straquadine, G. S. 2009. Role of Agricultural Extension in Sustainable Rural Development in Pakistan. *Lucrari Stiintifice Seria I*, **11**(1): 291-308.
 13. Baig, M. B. and Aldosari, F. 2013. Agricultural Extension in Asia: Constraints and Options for Improvement. *J. Anim. Plant Sci.*, 23: 619-632.
 14. Bajwa, R., 2004. Agricultural Extension and the Role of the Private Sector in Pakistan. A Paper Presented at the 4th International Crop Science Congress, Brisbane, Australia, 2004.
 15. Bajwa, M. S., Ahmad, M., Ali, T. and Iqbal, M. Z. 2008. Effectiveness of Farmers Field School (FFS) Approach for Information Dissemination of Agricultural Technology in Punjab. *J. Agric. Res.*, **46**(3): 36-46.
 16. Baloch, M. A. and Thapa, G. B. 2017. Review of the Agricultural Extension Modes and Services with the Focus to Balochistan, Pakistan. *J. Saudi Soc. Agri. Sci.*, **18**(2): 188-194.
 17. Benor, D., Harrison, J. Q. and Baxter, M. 1984. *Agricultural Extension: The Training and Visit System*. World Bank, Washington DC, USA
 18. Blair, H. W. 1978. Rural Development, Class Structure and Bureaucracy in Bangladesh. *World Dev.*, **6**(1): 65-82.
 19. Braun, V. and Clarke, V. 2006. Using Thematic Analysis in Psychology. *Qual. Res. Psychol.*, **3**: 77-101.
 20. Burton, M., Fileccia, T., Gulliver, A., Qamar, M. K. and Tayyab, A. 2012. *Pakistan: Priority Areas for Investment in the Agricultural Sector*. Country Highlights, Food and Agriculture Organization (FAO).
 21. Chapman, N. 1988. The Impact of T and V Extension in Somalia. In: "Training and Visit Extension in Practice", (Ed.): Howell, J. Occas. Pap. 8, Agricultural Administration Unit, Overseas Development Institute, London.
 22. Chaudhry, J. A. S. 1972. Evaluation Effectiveness of Demonstrations Techniques in Lahore District of Pakistan. MSc. Thesis, American University of Beirut, Lebanon.
 23. Davidson, A. P. 2001. Privatization and the Crisis of Agricultural Extension in Pakistan: Caveat Emptor. *Case Study Prepared for the Workshop*, Sustainable Agricultural Systems and Knowledge Institutions, November 12-15, 2002, Washington, DC.
 24. Davidson, A. P., Ahmad, M. and Ali, T. 2001. *Dilemmas of Agricultural Extension in Pakistan: Food for Thought*. Agricultural Research and Extension Network (AgREN), Overseas Development Institute (ODI).
 25. Farooq, A. and Ishaq, M. 2005. Devolving the Farm Extension System, P III: Economic and Business Review. Daily Dawn, Karachi. Monday, 2005.
 26. Farooq, A., Ishaq, M., Shah, N. A. and Karim, R. 2010. Agriculture Extension Agents and Challenges for Sustainable Development. *Sarhad J. Agric.*, **26**(3): 419-426.
 27. Ferroni, M. and Zhou, Y. 2012. Achievements and Challenges in Agricultural Extension in India. *Glob. J. Emer. Mar. Econ.*, **4**(3): 319-346.
 28. Gebrehiwot, K. G. 2017. The Impact of Agricultural Extension on Farmers' Technical Efficiencies in Ethiopia: A Stochastic Production Frontier Approach'. *South Afr. J. Econ. Manag. Sci.*, 20(1): a1349
 29. Government of Pakistan. 2004. *Agricultural Perspective and Policy*. Ministry of Food, Agriculture and Livestock, Govt. Pakistan., Islamabad.
 30. Government of the Punjab. 1983. *Punjab Extension and Agricultural Development Project*. PC-1 Form, Directorate General Agriculture (Extension and Adaptive Research), Govt. Punjab., Lahore.
 31. Gunawarda, A. M. T. and Chandrasiri, A. 1981. *The Training and Visit System of Extension*. Occasional Publication 26, Agrarian Research and Training Institute, Sri Lanka.
 32. Haq, A. Z. M. 2013. The Impact of Agricultural Extension Contacts on Crop Income in Bangladesh. *Bangladesh J. Agri. Res.*, **38**(2): 321-334.
 33. Haq, A. Z. M., Ishida, A., Yokoyama, S. and Taniguchi, K. 2003. Outcomes and Issues of

- Agricultural Extension Services in Bangladesh. *J. Agri. Ext. Res.*, **8(17)**: 17- 22.
34. Horton, R. C. 1958. *The Village Aid Programme in Pakistan*. United States Information Service, Karachi (Pakistan).
 35. Idrees, M. 1994. Agricultural Extension Problems and Future Strategies. *J. Rural Dev. Admin.*, **26(41)**: 135-141.
 36. Iqbal, M., Ahmad, M., Ali, S. and Ahmad, I. 2016. Perceptions of Farmers Regarding Commercialization of Extension Services in Punjab. *Pak. J. Agri. Res.*, **54(4)**: 851-860.
 37. Jan, I, Khan, H. and Jalaluddin, M. 2008. Analysis of Agricultural Extension System: A Discrepancy between Providers and Recipients of the Extension Services Empirical Evidence from North-West Pakistan. *Sarhad J. Agric.*, **24(2)**: 349-354.
 38. Kaegi, F. 2015. The Experiences of China's Agricultural Extension System in Reaching a Large Number of Farmers with Rural Advisory Services. *Background Paper to the SDC Face-to-Face Workshop "Reaching the Millions!"*, Hanoi, March 2015, Hanoi.
 39. Khan, A. and Akram, M. 2012. Farmers Perception of Extension Methods Used by Extension Personnel for Dissemination of New Agricultural Technologies in Khyber Pakhtunkhwa, Pakistan. *Sarhad J. Agric.*, **28(3)**: 511-520.
 40. Khan, M. H. 2006. *Agriculture in Pakistan: Change and Progress 1947-2005*. Vanguard Books (Pvt) Ltd., Lahore, Pakistan.
 41. Khan, M. A. J. 2003. Identification and Rank Order Development of Self-Perceived Competencies Possessed by Agricultural Extension Agents in the Punjab, Pakistan. Doctoral Dissertation, University of Agriculture, Faisalabad Pakistan.
 42. Khan, M. Z., Nawab, K., Ullah, J., Khatam, A., Qasim, M., Ayub, G. and Nawaz, N. 2012. Communication Gap and Training Needs of Pakistan's Agricultural Extension Agents in Horticulture. *Sarhad J. Agric.*, **28(1)**: 129-135.
 43. Khan, M. Z., Nawab, K., Ullah, J., Ahmad, S., Habib, M., Pervaiz, U., Khan, A., Khan, M. S., Ahmad, I., S. Mahfooz, S. and Manan, A. 2008. Assessment of the Professional Competencies of Agriculture Officers in NWFP, Pakistan. *Sarhad J. Agric.*, **24(3)**: 541-548
 44. Kilic, T., Palacios-Lopez, A. and Goldstein, M. 2013. *Caught in a Productivity Trap: A Distributional Perspective on Gender Differences in Malawian Agriculture*. Policy Research Working Paper 638, World Bank, Washington, DC.
 45. King, N. 2004. Using Templates in the Thematic Analysis of Text. In: "*Essential Guide to Qualitative Methods in Organizational Research*", (Eds.): Cassell, C. and Symon, G. Sage, London, UK, PP. 257-270.
 46. Lodhi T. E. 2003. Need for Paradigm Shift from top-down to Participatory Extension in the Punjab, Pakistan: Perceptions of Farmers, Change Agents and Their Supervisory Staff. PhD. Thesis, Department of Agricultural Extension, University of Agriculture, Faisalabad-Pakistan.
 47. Luqman, M., Shahbaz, B., Ali, T. and Iftikhar, M. 2013. Critical Analysis of Rural Development Initiatives in Pakistan: Implications for Sustainable Development. *Spanish J. Rur. Dev.*, **4(1)**: 67-74.
 48. Luqman, M., Saqib, R., Shiwei, X. and Wen, Y. 2018. Barriers to Gender Equality in Agricultural Extension in Pakistan: Evidences from District Sargodha. *Sarhad J. Agric.*, **34(1)**: 136-143.
 49. Malik, W. 2003. Operationalizing Agricultural Extension Reforms in South Asia: A Case of Pakistan. In *Regional Workshop on 'Operationalizing Reforms in Agricultural Extension in South Asia'*, New Delhi, India.
 50. Mallah, U. 1997. Extension Programs in Pakistan. In: "*Extension Methods*", (Ed.): Bashir, E. National Book Foundation, Islamabad (Pakistan). 35-60 p
 51. Miles, M. B. and Huberman A. M. 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. Sage Publications.
 52. Muddassir M., and J. Naseer. 2017. *Agricultural Extension System in China*. Soc. Scholar, 2017. www.socialscholars.pk
 53. Oladele, O. I., and Sakagami, J. -I. S. 2004. WOT Analysis of Extension Systems in Asian and West African Countries. *Food Agri. Environ.*, **2(2)**: 232-236.
 54. Owens, T., Hoddinott, J. and Kinsey, B. 2003. The Impact of Agricultural Extension on Farm Production in Resettlement Areas of Zimbabwe. *Econ. Dev. Cul. Chang*, **51(2)**: 337-357.
 55. Qijie, G. and Chuanhong, Z. 2008. Agricultural Technology Extension System in China: Current Situation and Reform Direction. *Man. Sci. Eng.*, **2(4)**: 47-58



56. Ragasa, C. and Mazunda, J. 2018. The Impact of Agricultural Extension Services in the Context of a Heavily Subsidized input System: The Case of Malawi. *World Dev.*, **105**: 25-47.
57. Rahim, F., Sadiq, M. S., Ibrahim, M. and Mehmood, Z. 2003. Role of Extension Agent in the Diffusion of Date Palm Cultivation in the District Pangur (Baluchistan). *Sarhad J. Agric.*, **19(4)**: 595.
58. Shah, I. A. and Baporikar, N. 2010. Participatory Rural Development Program and Local Culture: A Case Study of Mardan, Pakistan. *Int. J. Sust. Dev. Plan.*, **5(1)**: 31-42.
59. Shahbaz, B and Ali, T. 2011. Agricultural Extension System in Punjab Decentralized or Dispersed? Newspaper, accessed on October 03, 2011.
60. Shahbaz, B. and Ata, S. 2014. Agricultural Extension Services in Pakistan: Challenges, Constraints and Ways-forward., Enabling Agricultural Policies for Benefiting Smallholders in Dairy, Citrus and Mango Industries of Pakistan: Project No. ADP/2010/091. Background Paper No. 2014/1.
61. Stevens, R. D., Alavi, H. and P. J. Bertocci, P. J. 1976. *Rural Development in Bangladesh and Pakistan*. University Press of Hawaii.
62. Sulaiman V. R., Hall, A. and Raina, R. 2006. From Disseminating Technologies to Promoting Innovation: Implications for Agricultural Extension. *Paper Prepared for the SAIC Regional Workshop on Research-Extension Linkages for Effective Delivery of Agricultural Technologies in SAARC Countries*, 20-22 November, 2006.
63. Swanson, B. E. 2006. Seminal Article Series: The Changing Role of Agricultural Extension in a Global Economy. *Urbana*, **51**: 61801.
64. Talib, U., Ashraf, I., Chaudhary, K. M. and Riaz, A. 2017. Comparative Analysis of Satisfaction of Smallholder Rice Growers with Public and Private Extension Organizations and Development of a Strategy to Enhance the Effectiveness of Extension Work in the Punjab. *Pak. J. Agri. Res.*, **30(3)**: 242-248.
65. Urooba, P. 2001. Main Factors Affecting Extension Activities. A Case Study of Malakand Agency. MSc. Thesis Department of Agric. Ext. Educ. and Community. NWFP Agric. Univ. Peshawar, Pakistan.
66. Walisinghe, B. R., Ratnasiri, S., Rohde, N. and Guest, R., 2017. Does agricultural Extension Promote Technology Adoption in Sri Lanka. *Int. J. Soc. Econ.*, **44(12)**: 2173-2186.
67. Yaseen, M., Shiwei, X., Wen, Y. and Hassan, S. 2015. Policy Challenges to Agricultural Extension System in Pakistan: A Review. *Int. J. Agric. Appl. Sci.*, **7(2)**: 111-115.

چالش های پیش روی ترویج کشاورزی از نگاه مروجان کشاورزی در پاکستان

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چکیده

خدمات ترویج کشاورزی در پاکستان به دلایل مختلف، موثر تلقی نمی شود. تحقیقات برای یافتن دلایل این امر در پاکستان تا کنون اندک بوده است. پژوهش حاضر با این هدف انجام شد که عوامل مختلف بازدارنده و مزاحم فعالیت مروجان (Agricultural Officers) استان پنجاب در پاکستان که مهمترین ستون فعالیت های ترویجی و عامل تغییر هستند شناسایی شود. این پژوهش با ۳۴۸ مروج که به طور تصادفی در پنجاب انتخاب شده بودند انجام شد. پرسش اصلی مورد نظر این بود که چرا فعالیت

مروجان موثر تلقی نمی شود و چگونه می توان آن را به حالت عادی در آورد. طبیعت این مطالعه کیفی و با نمونه احتمال و اعتبار خارجی بود. داده ها به صورت کیفی جمع آوری شد و با استفاده از "تکنیک تحلیل موضوعی" تحلیل شد. در این مقاله ما مضامین قابل توجهی را که در فعالیت مروجان موثر هستند شناسایی کرده و توضیح می دهیم. نمونه این موارد عبارتند از "حمایت های جزیی دولت"، "سردرگمی محیط کار"، "روشهای خدمات راهنمایی و مشورتی و محیط فیزیکی"، "ظرفیت های سازمانی و پیشرفت حرفه ای"، و "مسایل مشارکت و پیوندها". نتایج به طور برجسته و با بینشی عمیقی نشان می دهد که چگونه مروجان کشاورزی برای بقای خود در انجام مسولیت های سنگین با تسهیلات کم تلاش میکنند. این مقاله همچنین حاوی تعمیم نتایج و خلاصه ای از توصیه هایی است که باید برای بازسازی خدمات ترویجی در پاکستان و کشورهای آسیایی و نیز برای ایجاد پیوندهای فراملی به منظور بازسازی شایسته ترویج کشاورزی مد نظر قرار گیرد.