CONTRIBUTION OF SUB-ASSISTANT AGRICULTURE OFFICERS' PERSONALITY TRAITS AND SKILLS TO THEIR PERFORMANCE IN EXTENSION SERVICE

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CERTIFICATE

This is to certify that the thesis entitled, **"Contribution of Sub-Assistant Agriculture officers' Personality Traits and Skills to Their Performance in Extension Service"** submitted to the faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of **Master of Science (MS) in Agricultural Extension,** embodies the result of a piece of bona fide research work carried out by **MD. ASHRAFUL MORSALIN**, Registration No.11-04598, under my supervision and guidance.No part of this thesis has been submitted for any other degree ordiploma.

I further certify that any help or sources of information, as has been availed of during the course of investigation have been duly acknowledged.

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DEDICATION

DEDICATED TO

THIS THESIS IS LOVINGLY DEDICATED TO MY PARENTS AND RESPECTED TEACHERS FOR THEIR ENDLESS SUPPORTS, ENCOURAGEMENT THROUGH OUT MY LIFE.

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ABBREVIATIONS AND ACRONYMS

Abbreviation	Full word
Ag. Ext. Ed.	Agricultural Extension Education
Ag. Ext. and Info. Sys.	Agricultural Extension and Information System
ANOVA	Analysis of Variance
B	Multiple regression
DAE	Department of Agriculture Extension
et. al	All Others
ICTA	Information and Communication Technology Agency
MoYS	Ministry of Youth and Sports
OLS	Ordinary Least Squares
SAAO	Sub Assistant Agriculture Officer
SPSS	Statistical Package for Social Science
UNDP	United Nations Development Program

CONTRIBUTION OF SUB-ASSISTANT AGRICULTURE OFFICERS' PERSONALITY TRAITS AND SKILLS TO THEIR PERFORMANCE IN EXTENSION SERVICE

Md. Ashraful Morsalin

ABSTRACT

The purpose of the study was to assess the Sub-Assistant Agriculture Officer's (SAAOs') performance in carrying out extension activities from farmers' perspectives. Attempts were also made to describe the selected personality traits and skills of the SAAOs' and to explore the influence of personality traits and skills on their performance. Five Factor Model (FFM) and Skill-based Approach were used to determine the selected personality traits and professional skills of professionals. Four villages from Jaldhaka upazila of Nilphamari district were randomly selected as the study area. Out of 428farmers, 131 were interviewed to assess Sub-Assistant Agriculture Officer's (SAAO) performance and selected characteristics during the period of 10 February to 27 February,2018. Descriptive statistics show that majority of the respondents (99.2%) were found highly satisfied at SAAOs' performance. Multiple regressions analysis indicates that neuroticism, extraversion, agreeableness, conscientiousness, technical skill and human skill significantly influenced professionals' performance while openness, conscientiousness and conceptual skills had no significant influence. However, alike neuroticism, extroversion was foundto have negative influence on performance. Although extraversion has been considered as a positive contributor of performance, highly extrovert person might be perceived differently by majority of the respondents of the farming community. All the factors jointly explained 31.4% (R^2=0.314) of the variances of extent of SAAOs' performance. The F value (6.977) indicates the model is significant (significant at 0.1 % level). Therefore, extension service providers should pay proper attention to the development of SAAOs' personality characteristics and their skills for the success of extension service.

CHAPTER I
INTRODUCTION

1.1 General Background

Leadership is a process of motivating others to achieve a desired outcome or goal. A leader by his own charisma, intelligence and experience lead his followers to a direction for satisfying their desires. He often articulates a vision and influences his followers to share the vision. Professional leader, on the other hand, is one who, by his knowledge, skill and ability, can provide leadership in organization. Professional leader are usually paid or rewarded for his job or for his leadership role. Besides, of performing the assigned roles and responsibilities, leaders' dedication and intentionto provide service is worthwhile for achieving quality outcome(Anand, 1981; Avolio & Gibbons, 1988).Like an industry, professional leaders' role in rural development is also very important. In agricultural extension service, all kinds of agricultural extension officials working in the agricultural service providers like Department of Agricultural Extension (DAE) are regarded as professional leaders. In particular, this study considers all upazila level agricultural extension officials as the professional leaders.

Development demands not only technology generation but an efficientdissemination mechanism of these generated technologiesto a social system(Mettrick, 1993). Effective dissemination of generated innovationsrequirescombined effort of extension personnel as a professional leader along with the farmers. Agricultural extension establishes communication networks between the farmers and the agricultural support service, which include research institutes, input supply agencies, marketing department and credit organizations. 'Extension had a vital role in ensuring the agro economic and social production problems they face are appreciated by research' (Benor et al, 1984). Extension services promote useful and remunerative technological changes among farmers and keeps agricultural research and other rural services well informed of the farmers conditions and needs. Extension agencies, both private and public, are providing technology supports to farming community to various capacities. DAE is the largest public sector organization in Bangladesh responsible for providing extension supports to farming communities. They have the widest network allow them to reach farmers with agricultural innovations even at the

block level (a sub-unit of union). Sub-Assistant Agriculture Officers (SAAOs) are the fieldlevel extension worker of DAE in a block (average 900-1500 farm families) ofaunion under Upazila Agriculture Officer (UAO) (Bose, 2014). The success and failure of a programme for promoting change lies in the hands of the personnel meaning them and will be determined by their ability (Leagan, 1961). Therefore, the success of extension service largely depends on the performance of SAAOs. In fact, performance of SAAOsis an essential element for the development of agriculture of Bangladesh. The success of extension service also largely depends on extension agents'and with the farmers. The usual point of contact between farmers and the department is at field level through SAAOs.Despitefarmers have other alternatives to receive agricultural information like mass media, personal contact between SAAOs and farmers develop effective means of communication for successful extension.

Extension approaches towards a close collaboration between farm families and extension staffs. Close collaboration with farmers means that SAAOs need to be skilled at listening, learning, encouraging, sharing, facilitating and linking farmers to the good practices for better and sustainable agriculture. In addition, SAAOs have to perform other duties as well. Likewise, they assist upazila extension officials in planning and developing agricultural extension programme at upazila level and directly execute the programme as per schedule. They mostly work in a participatory style with farmer groups of all types to identify the farm families' needs and provide solutions. Otherwise, they seek help and forward the issues to the higher officials for solutions. Apart from that, they often need to work with other local agencies involve in rural development initiatives. The performance of SAAOs is not merely based upon dealing with physical and material aspects pertaining to job responsibilitiesbut also upon their behavioral components such asknowledge, skill,attitudesand job satisfaction. Other economic and socio-psychological aspectsmay also exert over some influence on their performance. In a nutshell, an extension agent's performance depends on the full utilization of hisskills and also on the social expectation of the environment in which he works.

1.2 Statement of the Problem

Workers' collective performance is fundamental to achieve desire objectives of an organization are the grass root level extension workers andt heir better performances are highly positive factors towards the achievement of DAE's objectives. Thus it is

necessary to know how satisfactorily SAAOs are capable of providing extension support to the rural clienteles in uplifting living standard of rural community, and in particular increasing production. There are numerous ways one can assess workers' job performance. The most common approach is that of self-response interviews of the workers themselves, and second one is that of evaluating workers' performance by their higher officials. However, this study adopted a different approach where the beneficiaries of the extension service, i.e., farmers had been selected as the evaluators of extension workers' performance. SAAOs were only considered as the professional leaders for this study for two reasons. First, the limited time and budget of conducting this study, and second, they directly interact with the farmers at the field level. Hence, they are considered as the representative of DAE to the farming community. Nevertheless, workers' performance may be facilitated as well as hindered by many factors. Both extrinsic and intrinsic factors wereidentified in literature which jointly influence workers' performance. However, the role of workers' personality traits and skills to their performance in disseminating agricultural innovations is hardly researched. Therefore, it is pertinent to know the answer of the following questions.

I.   What personality traits and skills influence SAAOs' performance in disseminating agricultural innovation at farmers' level?

II.   How satisfied the clients (here, farmers) are with SAAOs' performance in carried out extension service at field level?

III.   To what extent SAAOs' personality traits and skills contribute clients' satisfaction of their performance in extension service?

1.3 Objectives of the Study

The overall objective of this study is to assess the roles of SAAOs' personal traits and skills on their performance in carried out extension service as perceived by their clients (here, farmers). Based on the questions asked in the section 1.2, the followingspecific objectives had been set forth to guide the research.

I.   To determine the personality traits and skills of Sub-Assistant Agriculture Officers (SAAOs) that impact their performance in extension service as perceived by the farmers,

II.   To determine the extent of farmers satisfaction withSub-Assistant Agriculture Officers (SAAOs) performance in extension service,

III.   To explore the contribution of theSub-Assistant Agriculture Officers'
(SAAOs) personality traits and skills to theirperformance in extension service
based on farmers satisfaction.

1.4 Justification of the Study

Transfer of technology is becoming a more complex task due to the increasing
number of farm households which resulting in poor flow of information among the
farmers. To meeting up the need of demand-driven agriculture, extension workers
need to work harder and therefore, it is important for them to gain skills on various
agricultural technologies and remainphysically and psychologically fit for the
extension service.Farmers' satisfaction on SAAOs performance was used as a proxy
to determinetheir level of service in disseminating agricultural innovation.This
research thus herewith contributes to understand the performance of local extension
service. In addition, by identifying the important personality traits and skillswhich an
extension worker might have to achieves for quality extension service,this research
provides key insights for policy makers on how to design extension service and train
workers as effective leaders for disseminating agricultural innovations.

1.5 Scope and Limitations of the Study

The present study was undertaken to assess the performance ofSAAOs' and its
relationships with their selected personality traits and skills. However, in order to
make the study manageable and meaningful from the view point of the research, it
was necessary to abide by some limitations as noted below.

I.   There were many factors that might influence SAAOs' performance for
quality work, however only big five personality traits and three keyarea of
skills were considered to evaluate SAAOs' performance.

II.   For assessing the performance of SAAOs', only farmers' side perspective was
considered.

III. Only Jaldhaka upazila of Nilphamari district was selected for conducting the
research which may fail to represent the actual scenario of the whole country
as people develop their strategies according to the concrete situation they face.

IV. It was a difficult task to get exact information on contribution of SAAOs'personality traits and skills to their performancein extension service from the farmers,as a significant section of them are illiterate.

V. The findings of the study may be subsidiary to the field worker of extension service to enhance their action strategies in disseminating agricultural innovation.

VI. The findings of the study will be conducive to accelerate the improvement in agriculture, farmers' logistic supports, information needs and the way of dissemination, especially tuned to key role players in the society as well as sustainability of agriculture. The outcomes might also be helpful to the planners, policy makers, extension workers, beneficiaries of theagriculture.

The findings also have implication for other areas of the country having similarities to the study area. It is believed that the findings of the research will be of special interest to the planners and policy makers in formulating and redesigning the extension services, especially for the performance of the SAAOs. The findings are expected to be helpful for the DAE in improving the efficiency of various categories of extension personnel in general and SAAOs in particular.

1.6 Assumption of the Study

The following assumptions were considered while undertaking the study:

I. The respondents included in the sample of the study were competent enough to satisfy the quarries designed by the researcher.

II. The information furnished by the respondents wascorrect and representative of the population.

III. The views and opinions furnished by the respondents included in the sample were representative views and opinions of all the farmers of Jaldhaka upazila underNilphamari district in Bangladesh.

IV. Environmental conditions and organizational procedures under which the SAAOs work are generally similar throughout the study area.

V. Respondentswere capable of evaluating SAAOs' personality traits and skills to their performancein extension service.

VI.   Evaluationof SAAOs' performance by the farmers was generally free from bias.

VII. The measures of the performance ofSAAOs were normally and independently distributed with their means and standard deviation.

1.7 Definition of Important Terms

Neuroticism: The extent to which the respondents believe that the leader (here, SAAO) is depressed, anxious, insecure, vulnerable and hostile in behavior(Goldberg, 1990).

Extraversion: The extent to which the respondents believe that the leader (here, SAAO) is sociable, active and assertive and to have positive energy to do the work (Goldberg, 1990).

Openness: The extent to which the respondents believe that the leader (here, SAAO) is informed, creative, imaginative, perceptive, insightful, and curious to solve the problem (Goldberg, 1990).

Agreeableness: The extent to which the respondents believe that the leader (here, SAAO) is kind, gentle, trustworthy, modesty and warm with his behavior(Goldberg, 1990).

Conscientiousness: The extent to which the respondents believe that the leader (here, SAAO)is capable of controlling and organizing goal-directed activities with perfection (Goldberg, 1990).

Technical skill:The extent to which the respondents believe that the leader (here, SAAO) has the knowledge and capabilities to perform specialized tasks or solve specific problems (Robert Katz,1955, p. 34).

Human skill: The extent to which the respondents believe that the leader (here, SAAO) is able to work with people to achieve organizational goals (Robert Katz,1955, p. 34).

Conceptual skill: The extent to which the respondents believe that the leader (here, SAAO) is able to help them to set-up and achieve theirfarminggoals (Robert Katz,1955, p. 34).

Satisfaction: The degree of satisfaction or dissatisfaction of the respondents on various aspects of SAAOs' work performancesuch insupervising farmers' work,

identifying farm problems and setting-up farming goals, providing technical supports, motivating farmers to modern agricultural innovations, and so on.

Performance: The extent to which the respondents perceived that the SAAO's performance of his job/work is satisfactory.

CHAPTER II

REVIEW OF LITERATURE

Review of literature presents a critical analysis of existing researches related to the topic of investigation, which guide the researcher to conduct the study in a structured way. In this chapter existing literature were reviewed and presented in the light of the objectives of the current study. This study is mainly related to the extent of the performance of extension agents (here, SAAOs')in extension service as perceived by the farmers. The researcher tried to collect needed information by thorough searching of the related thesis, books, journals, periodicals and internet. Evaluation of employees' job performance was a key concern in many researches particularly in organizational behavior discipline. SAAOs' job performance although was not a new, it might still consider as an under researched topic in agricultural extension discipline(Zaccaro,2000).Almost all those studies evaluated SAAOs' performance by self-response technique or by supervisor's judgments, this study attempts to measure performance from a farmer perspective. Therefore, the directly related literatures were not readily available for this study. A few of these studies relevant to this research are briefly discussed in this chapter under the following four sections: the first section deals with concept and definition of SAAOs' performance, the second section describes the big five personality factors, the third section summarizes three skills approaches and finally the fourth section justifies the proposed research model of this study incorporating both personality traits and skills that positively influence front-level extension worker's performance in disseminating agricultural innovations.

2.1 Concept and Definition of SAAOs' and Their Performance

Professional leaders are the individual who are assigned to a job and normally paids or receives remuneration for their tasks. They are responsible to carried out duties and responsibilities as assigned by their organization. Considering this definition, all the employees of agricultural extension service provider like SAAO, UAO, AEO are the professional leaders. Performance of professional leader refers to the degree to which an individual performs various duties and responsibilities assigned to them (Mahboob et al., 1978).

Employees' performance in an organizational context often synonymous to the job performance. A job can be defined as a collection of tasks assigned to a worker

(Lanham, 1955& Yulk, 1998) while performance implies how an individual actually performs in a given position, as distinct from how is expected to perform(Davis, 1948). Performance often is the outcome of an individual's response to stimulus objects (Herman,1973). It may further defined as the manner and extent to which an employee performs different responsibilities of their job in a practical situation(Rizvi, 1967).

Employees' job performance is however is influenced by many factors. Both extrinsic and intrinsic factors might influence theirperformance. Environmental condition and organizational cultureoften influence individual's job performance yet employees' personal abilities and their motivation have been considered as the most influential factors for better performance (Lynch, 1971). Similarly, Lawler and Porter (1968) argued that performance depends on an individual's ability to perform the specific task as assigned to him. The ability is however largely determined by hischaracteristics. A number of personal characteristics of individual may affect the quality and quantity of his performance(Vinake, 1962). In the following section, those personal characteristicshave been revealed.

2.2 Personality Traits and Five-Factor Model

Different personality trait models are available in the literature however researchers agreed that Five-Factor Model (FFM) is one of the most acceptable model for explaining different dimensions of human characteristics (McCrae & Costa, 1987; McCrae & John, 1992, Migliore, 2011). Personality represents the total quality of an individual behavior. Theoretically, it may be defined by a set of unique characteristics of an individual which influence his beliefs, attitude and behavior (Devaraj, et al., 2008). Several studies examined the effect of personality traits on different aspects of human behavior ranging from Internet adoption (Svendsen, et al.,2013) to use of library system (Saleem, et al., 2011). This study attempts to evaluate the roles of personality traits on an individual's performance in carried out extension service. The FFM, alternatively known as big five personality traits, explains human personality in five dimensions namely, neuroticism, extraversion, openness, agreeableness and conscientiousness (Wiggins, 1996; Goldberg, 1991 and Trapnell, 1990).

2.2.1Neuroticism and performance

Neuroticism related to one's emotional stability. Person with a low level of

neuroticism tend to be emotionally stable while person with high level of neuroticism are more likely to experience negative emotions (Terzis, et al., 2012). It is the tendency of an individual to be depressed, anxious, insecure, vulnerable and hostile. A person with a high level of neuroticism is easily irritated or being upset when something goes wrong. A neurotic user tends to have lack self-confidence and self-esteem (McCrae & Costa, 1991). Self-confidence is argued to be an essential characteristic for better performance (Bass, 1990 and House, 1977). Person having high level of self-confidence and self-esteem are better able to do their work with precision. Furthermore, a neurotic person is easily stressed when they encounter something new and fails to control emotion in adverse situation. Therefore, one would expectthat neuroticism negatively influences person's performance in work.

Hypothesis 1: Neuroticism negatively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers.

2.2.2 Extraversion and performance

Extraversion refers to the tendency of an individual to be sociable and assertive and to have positive energy. It represents an individual who is sociable, outgoing and tends of have positive emotion (Ross, et al., 2009). Sociability is a unique characteristic thatdrives a person to work with others. An extravert tends to be more expressive, articulate and dramatic (Goldberg, 1990; Watson & Clark, 1997). A person with high level of extraversion tendsto take initiative in social settings, to introduce people to each other, and to be socially engaging by being humorous, introducing topics of discussion, and stimulating social interaction (House and Howell, 1992). An extravert usually feels comfortable with people. Therefore, extraversion or sociability is a much needed characteristics of extension worker as because they tend to work with various categories of clients ranging from farmers, input dealers to other developmentworkers. An extravert extension worker may easily introduce himself with the farming community, facilitate discussion with farmer groups and take initiatives in executing extension plan in a given locale. Thus, it is expected that extraversion positivelyinfluence worker's performance.

Hypothesis 2: Extraversion positively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers

2.2.3 Openness and performance

Openness refers to the tendency to be informed, creative, insightful and curious (McCrae & Costa, 1997). A person with high in openness always welcomes new ideas and accepts positive changes towards development initiatives. He tends to be intelligent, receptive to new ideas, creative, curious, sensitive, flexible and adventurous (Korukonda, 2007; Lee, 2009). He used to be more innovative in his work and thought out of the box. Hence, he is expected to be more productive in his work and performance compare to their counterparts. Although a SAAO mostly performs routine duties, he often needs to address unique problems as arise in farmers' field. Therefore, a SAAO with high degree of openness to new experience and ideas is expected to be performed betterin carried out extension work at field level.

Hypothesis 3: Openness positively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers

2.2.4 Agreeableness and performance

Agreeableness is related to modesty, friendliness and emotional support (Barrick and Mount, 1991). Itis the tendency in accepting, conforming, trusting and nurturing others. A person high in agreeableness scalebelieves in interpersonal relationship and teamwork. An agreeableness person takes care of others and often sympathizes with others' feelings. Given the participatory nature of agricultural extension work, a SAAO needs to work with different group of farmers and support them basedon their unique needs. Hence, agreeableness proves to be important characteristics of an extension worker for successful dissemination of technologyinthe rural area. Study also support this assumptionthat several aspects ofagreeableness (e.g.,compassion, nurturance) positively influence a person's leadershipquality Ross and Offerman (1991). Therefore, it could be hypothesized that

Hypothesis 4: Agreeableness positively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers

2.2.5 Conscientiousness and performance

For an organized work, conscientiousness perhaps is the most important characteristic of a person. Conscientiousness of self-determination is likely to be a characteristic of a person'sleadership performance(Bass,1985). Barrick & Mount(1991) arguedthat

achievement and self-discipline are the major components of conscientiousness. It refers to the tendency of an individual to be thorough, organized, controlled, dependable and decisive in performing a task. Therefore, persons having conscientious personalities are self-controlled, efficient and organized in theirwork. Since a conscientious person is organized in his work, achievement oriented and has better control over the situation,his performance is expected to be better than that of a non-conscientious person.Therefore, the following hypothesis was proposed.

Hypothesis 5: Conscientiousness positively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers.

2.3 Three Skills Approach

Considering the leadership in organization while FFM model looks into a person's personality traits, skill approach considers an individual's knowledge and abilities to perform a work. A person may learn certain skills through trainings and experience and turn himself to be an efficientleader for his organization (Yammarino, 2000). Katz (1955) first recognized the three importantabilities that an employee should have for effective role playing. These are: technical skill, human skill and conceptual skill. He further argues that these skills are different from personality traits that what a leader can accomplish. Depending on the position in the management, an employee needs different skills more than others. For an example, a supervisor needs human and technical skills, middle management requires all three skills (human, technical and conceptual) and top level management needs human and conceptual skills (Northouse, 2012). Considering the tasks that need to be carried out by a SAAO at field level, human and technical skills seem important for them for performing their job successfully while conceptual skills is not a mandate for their task requirements.

2.3.1 Technical Skill and performance

Katz (1955) revealed that technical skill is knowledge about and proficiency in a specific type of work or activity which includes competencies in a specialized area, analytical ability, and the ability to use appropriate tools and techniques with performance. For example, being an extension worker, a SAAO must possess subject-specific knowledge in farming practices,and know how to disseminate technology to the clients. He must need to understand the basic principles of agricultural extension programme and develop the ability to use various extension tools and techniques in

recognizing farm problems and finding solutions.Technical skills plays a vital role in buildingfarmers trust and confidence on extension worker's abilities and performance in defining farm problems and ultimately foster satisfaction in extension service. Moreover, a worker higher skill in technical subject-matter may also speed up the extension service delivery. Therefore, it can be hypothesized that:

Hypothesis 6: Technical skill positively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers

2.3.2Human Skill and performance

According to Katz (1955) human skill is knowledge about and ability to work with people that help a leader to work effectively with subordinates, peers, and superiors to accomplish the organization's goals. Being anextension workerhuman skills is essential element for SAAOs to understand clients' perspective andat the same time take into account others' needs towards development initiatives. Human skill is a skill that helps to build an atmosphere of trust where farmers can interact with SAAO freely and encouraged to become involved in extension programme which will affect them positively. Furthermore, it allows SAAO to work with farmers' group in cooperative fashion and achieve common goals. In short, human skill is the capacity to get along with others as you go about your perform. Therefore, it can be concluded that:

Hypothesis 7: Human skill positively influences SAAO's performance in disseminating agricultural innovations as perceived by the farmers

2.3.3Conceptual Skill and performance

Conceptual skill is mostly required for the top level and to some extent mid-level management rather for operational or lower level management. This isin fact represents the capacity of an individual to do the mental work of shaping meaning of organizational policy and issues (Katz, 1955). The key idea behind the conceptual skill is to create and articulate a vision and strategic plan for organization. In a nutshell, conceptual skill is the ability to work with ideas and concepts. A person high in conceptual skill is comfortable to formulate plan and ideas that can shape an organization (Mumford& Zaccaro, 2000; Mumford & Morgeson, 2007). He is able to develop the road map for the organization to achieve success and understand what a company stands for and where it should be going. Therefore, conceptual skill is

highly relevant for employee's performance. However, giventhe job responsibilities of SAAOs and their position in organizational hierarchy, human skill is said to be non-mandate for them. Since conceptual skill denotes the ability to work with idea and SAAO generally perform the task as assigned to them by higher authority and carry out day-to-day activities of upazila level agriculturalextension plan, technical and human skills are must needed skills for them. Therefore, this study posits that the human skill has no influence on SAAO's performance in disseminating agricultural innovation yet the hypothesis (H8) is proposed and tested only for explorative purpose.

Hypothesis 8: Conceptual skill of SAAO do not influence their performance in disseminating agricultural innovations as perceived by the farmers

2.4 Research Model of the Study

Assessing the influence of personality traits to employees' job performance is not very uncommon in organizational behavior literature yet it can be considered as one of the very few attempts in agriculturalextension discipline. Moreover, incorporating extension worker's personality traits with their skills is so far the unique attempt in this discipline.

Rather than arbitrarily selecting the important personality traits and skills, this study adopteda theoretical approach. Hence, big five personality traits model (Goldberg, 1991) and three skills approach (Katz, 1955) were considered. The big five personality traits, alternatively known as FFM model argued for five traits namely, neuroticism, extraversion, openness, agreeableness and conscientiousness that positively and significantly influence one's job performance. While personality traits are mostly inherited to human, skill approach mostly emphasizes on unique capabilities of human that may learn through education and training. Likewise, Katz (1955) proposed three skills namely, technical, human and conceptual- all these skills are important for effective performance while their relative importance is subjected to change based on employee's position in the management level. Considering this, the researcher undertook the current research program using those indicators to assess performance of SAAOs' in agricultural extension service (Fig 1).
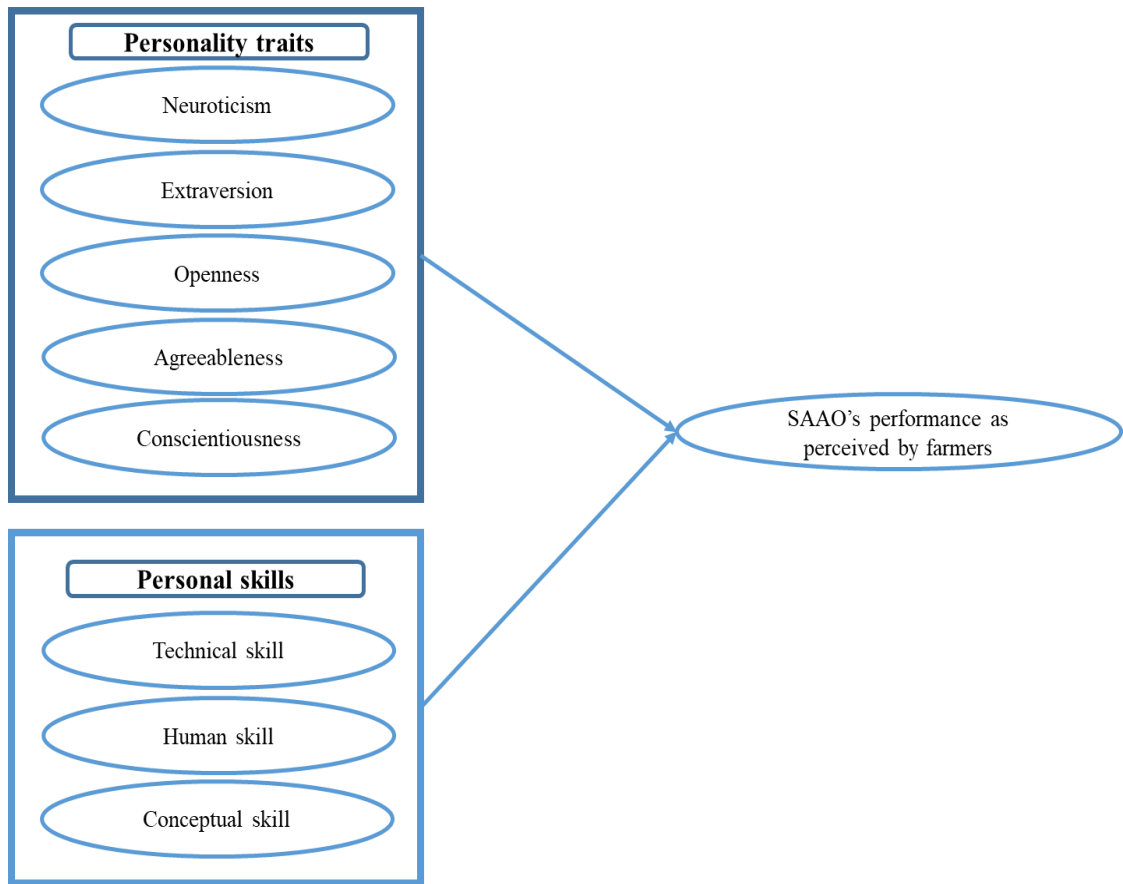
Figure 2.1: The conceptual framework of the study

CHAPTER III

METHODOLOGY

Methodology plays an important role in a scientific research. To fulfill the objectives of the study, a researcher should be very careful while formulating methods and procedures in conducting the research. According to Mingers (2001), research methodology is a structured set of guidelines or activities to generate valid and reliable research results. This chapter of the thesis illustrates the research methods and procedures used to collect and analyze the data for answering the research questions and attaining the purposes. Methods and operational procedures followed in conducting the study e.g., selection of study area, sampling procedures, instrumentation, measurement of the variables categorization of variables, collection of data and statistical measurements. A chronological description of the methodology followed in conducting this research work has been presented in this chapter.

3.1 ResearchDesign

A research design is detailed plan of investigation. It is the blueprint of the detailed procedure of testing the hypothesis and analysis of the obtained data. The research design followed in this study was *ex-post facto,* because of uncontrollable and non-manipulating variables. This is absolute descriptive and diagnosticresearchdesign.Adescriptiveresearchdesignissuedforfactfindings with adequateinterpretation. Diagnostic research design, on the other hand, is concerned with testing the hypothesis for specifying and interpreting the relationship ofvariables (Jaynab, 2016).

3.2 Locale of the Study

The study was conducted in the Jaldhaka upazila under Nilphamari district. The area of Jaldhaka upazila is 303.52 sq. km, located at 26.0167°Nlatitude and 89.0250°Elongitudes. It is bounded by Domar and Dimla upazilas on the north, West Bengal state of India on south, Kishorganj and Saidpur on the east, Nilphamari sadar on the west. No previous study was conducted in this area on the contribution of SAAOs' personality traits and skills to their performance in extension service. Additionally, this study area is famous for various types of agricultural produce andsolely agro-based. It is far from the capital city and not well connected to the city.

Hence, this area was selected as the locale of the study. Four villages of Jaldhaka upazila namely Golmunda, Mirganj, Shimulbari, and Khutamara were selected as the locale of the study. A map of Nilphamary district showing Jaldhaka upazila and a map of Jaldhaka upazila showing the study villages were shown in figure 3.1 and 3.2 respectively.

3.3 Population and Sampling Design

Farm family head of the selected villages (Golmunda, Mirganj, Shimulbari, and Khutamara) of Jaldhaka upazila constituted thepopulation of this study.As all population of the study area could not possible to measure, thus 428 farm families of selected villages were the population of the study. Updated lists of all farm familiesof the selected villages were prepared with the help of SAAOs and local leaders. Yamane's (1967) formula was used to determine the sample from the population by following way:

$$n = \frac{z^2 P\ (1-P)\ N}{z^2 P\ (1-P) + N\ (e)^2}$$

Where,
    n = Sample size;
    N, Population size = 428;
    e, The level of precision = 7%;
    z = the value of the standard normal variable given the chosen confidence level
      (e.g., z = 1.96 with a confidence level of 95 %) and
    P, The proportion or degree of variability = 50%;

Thus, the sample size (n) was = 131

A reserve list of 14respondents (ten percent of the sample size) was also prepared so that theycould beinterviewed ifany respondent included in the original sample wasnot available during data collection. Respondent samples were selected from each village byusing proportionate random sampling technique. The distribution of the population, the number of sample size and number of respondents along with the reserve list are given in the Table 3.1.

3.1 Population, sample size and reserve list of the study

Villages	Population	Sample size	Reserve list
Golmunda	120	37	4
Mirganj	160	50	5
Shimulbari	85	25	3
Khutamara	63	19	2
Total	428	131	14
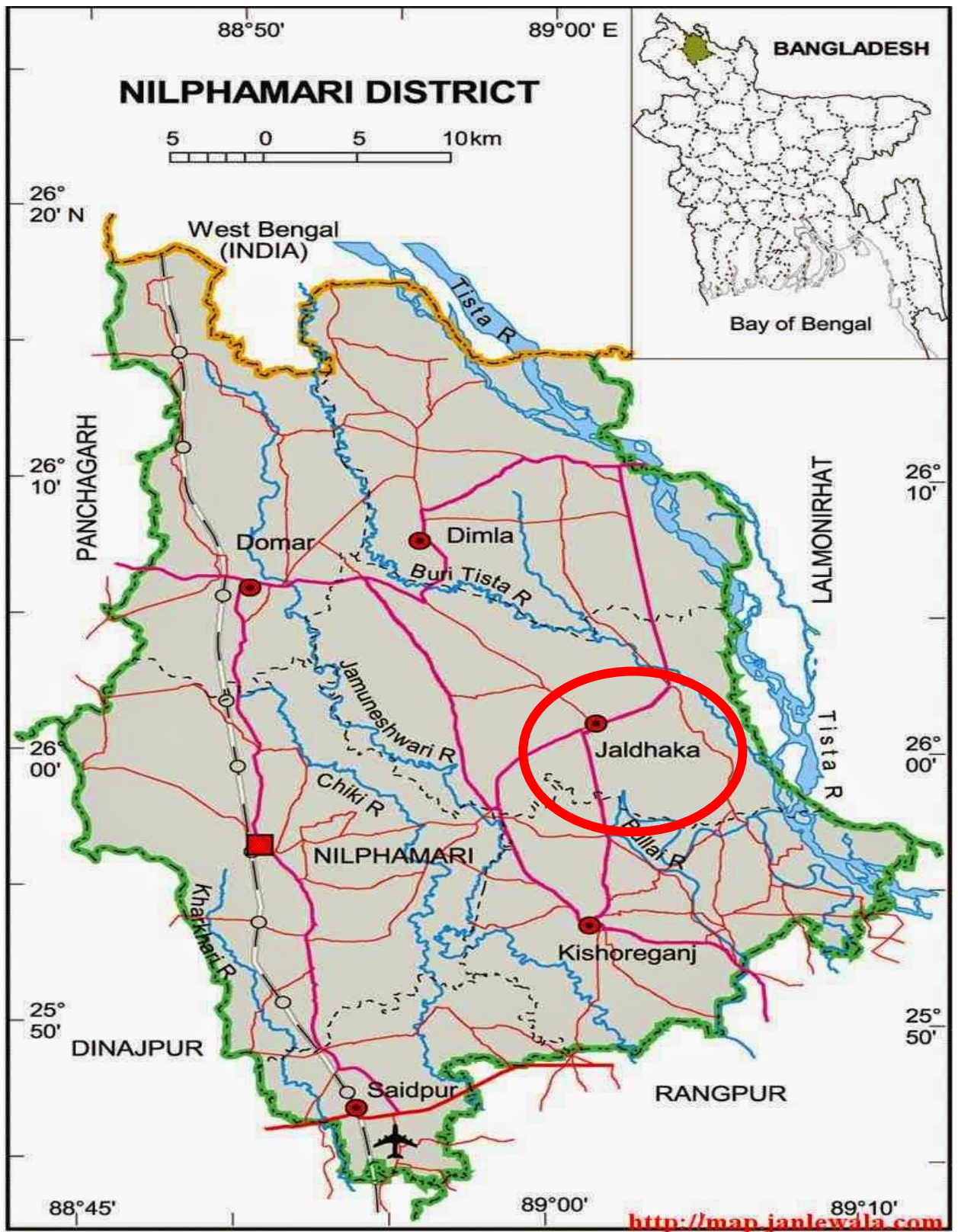
Figure 3.1 A map of Nilphamari district showing Jaldhaka upazila

Figure 3.2 A map of Jaldhaka upazila showing the study villages

3.4 Instrument for DataCollection

Data were collected using a structured interview schedule. A three-step method was followed to develop the interview schedule. The key focus of this study was to assess the contribution of SAAOs' personality traits and skills on their performance inprovidingextension service. First, relevant literatures were searched for measurementitems of the concerned variables. Upon reviewing all the items, a pool of items for each variable was developed. Second, these items were reworded or

rephrasedbased on the context of the study. Third and finally, the adapted scales were pre-tested on five respondents and necessary correction and modifications were made based on their responses. Respondents' demographic related questions were also added to the instrument.

The interview schedule was then multiplied in its final form for collection of data. Validated measurement items of each construct with their literature sources (Leadership-theory and practice, Five big model and Skill approaches model)were presented. An English version of the interview schedule isattached in theAppendix-A. Pre-test was conducted from 08 January to 12 January, 2018. The final data collection was started from 10 February and completed in 27 February,2018.

3.5Variables and Scales

The variable is a characteristic, which can assume varying, or different values in successive individual cases. A research work usually contains at least two important variables viz. independent and dependent variables. An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon. On the other hand dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or alterthe independent variable (Townsend, 1953). In the scientific research, the selection and measurement of variable constitute a significant task. Following this conception, this research reviewed literature to widen the understanding about the natures and scopes of the variables relevant to this research. Based on the FFM model and skill approach, eight variables were considered as independent variables and one variable asdependent variable. Theindependent variables were:neuroticism,extraversion,openness,agreeableness,conscientiousness,technical skill, human skill and conceptual skill. The dependent variable of this study was SAAOs'performance in extension service as perceived by the farmers.

The methods and procedures in measuring the variables of this study are presented below:

3.5.1 Measurement of Independent Variables

Five traits and three skills of SAAOs that mentioned above werethe independent variables of this study. The following procedures were followed for measuring thevariables.

3.5.1.1Neuroticism

Neuroticism refers to thedegree to which a respondent perceives a professional leader as a personwho easily be anxious, depressed, angry and emotionally instable.Neuroticism also refers to the degree of emotional stability and impulse control and is sometimes referred to by its low pole, "emotional stability".Respondents' responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Neuroticism of a respondent was measured by summing upthe scores of 4 selected items. Thus neuroticism score of a respondent could range from '4' to '20' where '4' indicates lowest neuroticism and '20' indicate highest neuroticism.

3.5.1.2Extraversion

Extraversion refers to the degree to which a professional leader is perceived as social, talkative, assertive, active, and ambitious and is able to openly express his or her feelings and emotions.Respondents' responses were measured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as givingweights inof the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Extraversion of a respondent was measured by summing upthe scores of 4 selected items. Thus extraversion score of a respondent could range from '4' to '20' where '4' indicates lowest extraversion and '20' indicate highest extraversion.

3.5.1.3 Openness

Openness refers tothe degree to which a professional leader is perceived asopen to experience,intellectually curious and keen to explore new things. Respondents'

responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Openness of a respondent was measured by summing up the scores of 4 selected items. Thus openness score of a respondent could range from '4' to '20' where '4' indicates lowest openness and '20' indicate highest openness.

3.5.1.4 Agreeableness

Agreeableness is the extent to which a professional leader is perceived as courteous, good natured, flexible, trusting, and liked by others. Respondents' responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Agreeableness of a respondent was measured by summing up the scores of 5 selected items. Thus agreeableness score of a respondent could range from '5' to '25' where '5' indicates lowest agreeableness and '25' indicate highest agreeableness.

3.5.1.5 Conscientiousness

Conscientiousness refers to the degree to which a professional leader is perceived as dependable, responsible, organized, and a planner. It is related to the way in which people control, regulate, and direct their impulses. High scores on conscientiousness indicate a preference for planned rather than spontaneous behavior. The average level of conscientiousness rises among young adults and then declines among older adults.Respondents' responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1

Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Conscientiousness of a respondent was measured by summing up the scores of 4 selected items. Thus conscientiousness score of a respondent could range from '4' to '20' where '4' indicates lowest conscientiousness and '20' indicate highest conscientiousness.

3.5.1.6 Technical skill

Technical skill refers to the having knowledge about and being proficient in a specific type of work or activity. Understanding the skills needed to advance the organization, whether it is computers or finances. Technical skills are very important in the supervisory role and become less important as one ascends the hierarchy, where other skills are more important. Respondents' responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Technical skill of a respondent was measured by summing up the scores of 3 selected items. Thus technical skill score of a respondent could range from '3' to '15', where '3' indicates lowest technical skill and '15' indicate highest technical skill.

3.5.1.7 Human skill

Human skill refers to the having the ability to work with people, the "People skills". An awareness of one's self and others. Being aware of one's own perspective on issues and also being aware of the perspective of others. Being sensitive to the needs and motivations of others and taking this into account in the decision making process. Respondents' responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3

Agree	4
Strongly agree	5

Human Skill of a respondent was measured by summing upthe scores of 4 selected items. Thus human skill score of a respondent could range from '4' to '20' where '4' indicates lowest human skill and '20' indicate highest human skill.

3.5.1.8 Conceptual skill

Conceptual skill refers to the ability to work with concepts and ideas. This is the visionary side of leadership, thinking about the long term and larger picture. A leader with high conceptual skills works well with abstract and hypothetical ideas. This is central to creating a vision for the organization that the followers can believe in. This is the most important for top management. Respondents' responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	**Weight**
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Conceptual skill of a respondent was measured by summing up the scores of 3 selected items. Thus conceptual skill score of a respondent could range from '3' to '15' where '3' indicates lowest conceptual skill and '15' indicate highest conceptual skill.

3.5.2 Measurement of Dependent Variable

Performance of SAAOs' are the vital for the success of agricultural extension service. As the frontline extension workers, they work directly with the farmers for disseminating agricultural technology. It is their responsibilities to carry out the national agricultural plan at the grass root level. Hence, SAAOs, performance was the dependent variable of this study. SAAOs' performance could be measured in three ways. First, SAAOs could be interviewed for their work responsibilities and performance, however this approach has limitation due to higher self-response bias. Second, farmers evaluation where farmers can give clear opinion and understanding about the performance of SAAOs. The farmers made better assessment about the performance of SAAOs than those of self, AEO and UAO. Third, SAAOs' supervisor

i.e., UAO and AEO could be interviewed for their performance evaluation, which is a common approach to evaluate subordinates' performance in organizational setting. Nevertheless, given that the agricultural extension is mostly a client-centric service, their reflection on providers' (i.e., SAAOs') performance could be the best alternative. Moreover, it can be best ascertained by observing their work in the field from farmers perspective rather than extension workers' or their supervisors' perspective. Therefore, farmers' satisfaction on SAAOs' efficiency at work was used as a proxy of their performance. To carry out the plan, every respondent was requested to evaluate the personality traits, skills and performance of a SAAO of the concerned block. For measuring the performance of SAAOs, 4 statements (items) were selected and responses were captured by using a five-point rating scale (1-5) ranging from 'strongly disagree' to 'strongly agree' as weights of the following manner:

Responses	Weight
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Performance of SAAOs of a respondent was measured by summing up all the scores of all the responses of all selected 4 items. Thus performance of SAAOs score of a respondent could range from '4' to '20' where '4' indicates lowest performance and '20' indicates highest performance.

3.6 Data Processing

 For data processing the following steps were followed:

3.6.1 Editing

Raw data were properly reviewed for omitting errors. The researcher made a careful scrutiny when he completed an interview so that all data were included to facilitate coding and tabulation.

3.6.2 Compilation, Tabulation and Coding of Data

After completion of field survey all the interview schedule were compiled, tabulated and analyzed according to the objectives of the study. In this process all the responses in the interview schedule were given numerical code values. The responses to the

question in the interview schedule were transferred to a master sheet to facilitate tabulation. Tabulation was done on the basis of categories developed by the investigator himself.

3.6.3 Categorization of Respondents

For describing the various independent and dependent variables the respondents were classified into various categories. These categories were developed for each of the variables based on equal distribution of the possible scores for each variable. In developing categories the researcher was guided by the nature of data and general consideration prevailing on the social system. The procedures have been discussed while describing the variable in the sub-sequent sections of next chapter.

3.7 Hypothesis of the Study

Based on review of literature and development of conceptual framework, the following research hypotheses were formulated:

"Each of the 7 selected characteristics (extraversion, openness, agreeableness, conscientiousness, technical skill, human skill & conceptual skill) of the SAAOs' had significant and positive influenced while neuroticism had significant but negative influence on their performance in extension service as perceived by the farmers.

3.8 Statistical Analysis

Both descriptive and inferential statistics were used to analyze the data. Descriptive statistics such as frequency distribution, percentage, range, mean, and standard deviation were used to present the general characteristics of the data set while inferential statistics like Multiple Regression (r) was used in order to explore the influence of personality traits and skills on SAAOs' performance. Five percent (0.01) level of probability was the basis for rejecting any hypothesis throughout the study. The SPSS v.23.0 was used to perform all these analyses.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter deals with the findings which were recorded in accordance with the objectives of the study. The chapter contains four sections. Such as, respondents' demographic characteristics; descriptive statistics of the independent variables, that is, personality traits and skills of SAAOs; dependent variable of this study, i.e., SAAOs' performance in extension service as perceived by the farmers; finally, the contribution of personality traits and skills on SAAOs' performance was described.

4.1 Respondents' Characteristics

The key focus of this study was to assess the contribution of personality traits and skills of SAAOs' on their performance as perceived by the farmers. Therefore, farmers were considered as the respondents of this study who were asked to evaluate SAAOs' performance in carrying out extension activities. Respondents' demographic characteristics were presented in Table 4.1.

Table 4.1Respondents'characteristics (N=131)

Characteristics	Frequency	Percent	Observed Range	Mean	Standard Deviation
Age (in years)					
Young (up to 35)	27	20.6			
Middle (36-50)	64	48.9	27-60	45.33	9.091
Old (>50)	40	30.5			
Education qualification					
Can Sign Only	20	15.3			
Primary Education	86	65.6			
Secondary Education	19	14.5	12-0.5	3.702	3.033
Higher Secondary Education	6	4.6			
Farming experience (in years)					
Low Experience	20	15.3			
Medium Experience	46	35.1	43-11	26.50	9.40
High Experience	65	49.6			
Annual family income (thousand Taka)					
Low (≤ 120)	110	84.0			
Medium (121 to 200)	20	15.3	220-15	84.53	42.492
High (≥ 201)	1	0.7			

Table 4.1 reveals that majority of the respondents (48.9 percent) were middle aged(36-50 years) and less than one-fifth (20.6 percent) were young (up to 35 years). The mean of the respondents' age was 45.33 years with a standard deviation of 9.091. Based on the classification provided by the Ministry of Youth and Sports-Government of the People's Republic of Bangladesh, around one-third of them (30.5percent) were old aged. On an average respondent completed almost four years of formal schooling (mean 3.702) with a standard deviation of 3.033. The highest proportion(65.6 percent) of the respondents had primary level education while 14.5 percent had secondary level education followed by 4.6 percent had higher secondary level education. However, 15.3 percent of the respondents were found can sign only. Respondents on an average had 26.50years of experience in farming with a standard deviation of 9.40 years. Almost half (49.6 percent) of the respondents had high farming experience while more than one-third(35.1 percent) had medium followed by 15.3 percent had low farming experience. On an average respondent had 84.53 thousand taka of annual family income with a standard deviation of 42.492. The highest proportion (84.percent) of the respondents had up to 120 thousand taka of annual income while 15.3 percent had medium and 0.8 percent had high annual income.

4.2Salient Features of Personality Traits and Skills of SAAOs

Behavior of an individual is shaped by largely extent by one's personal characteristics. There were various characteristics of the professional leaders (SAAOs) that might have consequence on the performance. However, guided by the big personality traits and skill approach, eight characteristics were considered. Descriptive statistics of these characteristics are presented in Table 4.2.

Table 4.2Descriptive statistics of personality traits and skills of SAAOs

Constructs	Possible range	Observed range		Mean	Standard deviation
		Min.	Max.		
Agreeableness	5-25	12	23	2.67	0.738
Extraversion	4-20	16	18	24.10	8.362
Openness	4-20	12	19	15.54	3.177
Neuroticism	4-20	15	19	11.96	3.732
Conscientiousness	4-20	8	18	18.34	1.904
Technical skill	3-15	7	14	15.76	2.914
Human skill	4-20	16	20	9.08	3.770
Conceptual skill	3-15	8	15	31.79	3.318

4.2.1 Agreeableness

The observed agreeableness scores of the respondents ranged from 12 to 23. The average agreeableness score was 17.84 with a standard deviation 2.697. Based on the possible range of agreeableness score (4-25), respondents were classified into following three categories as shown in Table 4.3.

Table4.3 Distribution of the respondents according to their perceivedagreeableness

Categories	Frequency	Percent	Mean	Std
Low(<8 score)	00	0.00		
Moderate(9-16 score)	42	32.1	17.84	2.697
High(>17 score)	89	67.9		
Total	131	100		

Table 4.3 revealed that around one-third (32.1 percent) of respondents perceived SAAOs as moderate and about two-third (67.9 percent)of them perceived SAAOs as highly agreeable. The respondents thought SAAOs had moderate to high level of agreeableness while no one was found to report low agreeableness. It was noticed that agreeableness involves the individual being more compliant and conforming. This turns into higher performance and lower levels of deviant behavior. Therefore, comparing to earlier findings, the agreeableness by extension professionals is progressing.

4.2.2 Extraversion

The observed extraversion scores of the respondents ranged from 16 to 18. The average extraversion was 16.53 and the standard deviation was 0.816. The respondents were classified into following three categories based on their possible range of extraversion score (4-20) as shown in Table 4.4.

Table 4.4 Distribution of the respondents according to their perceived extraversion

Categories	Frequency	Percent	Mean	Std
Low(<7 score)	00	00		
Moderate(8-15 score)	00	00	16.53	0.816
High(>16 score)	131	100.0		
Total	131	100		

Data in Table 4.4 revealed that all the respondents perceived that SAAOs had high level of extraversion characteristics. Therefore, it is expected that all the SAAOs had high level of interpersonal skills, greater social dominance and making the individual

more emotionally expressive. This leads to higher performance as well as farmers' satisfaction.

4.2.3Openness

The observed openness scores of the respondents ranged from 12-19 with a mean of 16.09 and standard deviation of 1.643. Respondents were classified into following three categories based on the possible range of openness (4-20) as shown in Table 4.5.

Table4.5 Distribution of the respondents according to their perceived openness

Categories	Frequency	Percent	Mean	Std
Low(<7 score)	00	00.0		
Moderate(8-15 score)	14	10.7	16.09	1.643
High(>16 score)	117	89.3		
Total	131	100		

Data in Table 4.5 reveals that an overwhelming majority (89.3 percent) of the respondents compared to one-tenth (10.7percent) of them perceived SAAOs had high and moderate level of openness, respectively while none of them reported low openness. That means, SAAOs of the concerned blocks were found to be open to consider farmers' perspectives and flexible enough to working with people. Therefore, it can be concluded that this turns into higher performance as perceived by their farmers' in carrying out extension activities at the study area.

4.2.4Neuroticism

The observed neuroticism scores of the respondents ranged from 15-19with a mean of 16.50and standard deviation of 0.931. Respondents were classified into following three categories based on the possible range of neuroticism (4-20) as shown in Table 4.6.

Table 4.6Distribution of the respondents according to their perceived neuroticism

Categories	Frequency	Percent	Mean	Std
Low(<7 score)	00	00.0		
Moderate(8-15 score)	6	4.60	16.50	0.931
High(>16 score)	125	95.4		
Total	131	100		

Data in Table 4.6 reveals that highest proportion (95.4percent) of the respondents perceived that SAAOs were high in neuroticism while only 4.60% opined that

SAAOs were moderately high in neuroticism. Neuroticism refers to the tendency of an individual to be anxious and depressed which negatively affect performance.

4.2.5 Conscientiousness

The observed conscientiousness scores of the respondents ranged from 8-18 with a mean of 15.24and standard deviation of 1.568. Respondents were classified into following three categories based on the possible range of conscientiousness (4-20) as shown in Table 4.7.

Table4.7Distribution of the respondents according to their perceived conscientiousness

Categories	Frequency	Percent	Mean	Std
Low(<7 score)	00	00.0		
Moderate(8-15 score)	55	42.0	15.24	1.568
High(>16 score)	76	58.0		
Total	131	100		

Data in Table 4.7 reveals that higher (58.0 percent) of conscientiousness scores of the respondents as compared to moderately (42.0 percent) of the respondents conscientiousness scores to accomplish that SAAOs usually reflected in greater effort and persistence, more drive and discipline and better organization and planning. This leads to higher performance, enhanced leadership and greater longevity of the individual in the organization.

4.2.6 Technical skill

The observed technical skill scores of the respondents ranged from 7-14 with a mean of 10.74and standard deviation of 1.948. Respondents were classified into following three categories based on the possible range of technical skill (3-15) as shown in Table 4.8.

Table 4.8 Distribution of the respondents according to their perceived technical skill

Categories	Frequency	Percent	Mean	Std
Low(<5 score)	00	00.0		
Moderate(6-10 score)	61	46.6	10.74	1.948
High(>11 score)	70	53.4		
Total	131	100		

Data in Table 4.8 reveals that about fifty percent (53.4 percent) higher of technical skill scores of the respondents as compared to moderately (46.6 percent) of the respondents technical skill scores which accomplish that SAAOs skill in subject matter were found to be moderate to high. Thus, it indicates SAAOs' high mastery level in handling technical issues of farmers' problems.

4.2.7 Human skill

The observed human skill scores of the respondents ranged from16-20 with a mean of 17.48 and standard deviation of 1.349. Respondents were classified into following three categories based on the possible range of human skill (4-20) as shown in Table 4.9.

Table 4.9 Distribution of the respondents according to their perceived human skill

Categories	Frequency	Percent	Mean	Std
Low(<7 score)	00	00		
Moderate(8-15 score)	00	00	17.48	1.349
High(>16 score)	131	100.0		
Total	131	100		

Data in Table 4.9 revealed that all the respondents believe that the SAAOs had high human skills to work with the people. Human skill is the ability to work with people, 'peoples skills'. An awareness of one's self and others. Being aware of one's own perspective on issues and also being aware of the perspective of others. Being sensitive to the needs and motivations of others and taking this into account in the decision making process. Thus, it is expected that SAAOs had shown high level of competency in human skills that ultimately influence their performance positively.

4.2.8 Conceptual skill

The observed conceptual skill scores of the respondents ranged from 8-15 with a mean of 12.17 and standard deviation of 1.948. Respondents were classified into following three categories based on the possible range of conceptual skill (3-15) as shown in Table 4.10.

Table 4.10 Distribution of the respondents according to their perceived conceptual skill

Categories	Frequency	Percent	Mean	Std
Low(<5 score)	00	0.00		
Moderate(6-10 score)	7	5.30	12.17	1.948
High(>11 score)	124	94.70		
Total	131	100		

Data in Table 4.10 reveals that highest proportion (94.70 percent) of conceptual skill scores of the respondents as compared to moderately (5.30 percent) of the respondent conceptual skill scores recognizes SAAOs' ability to work with new concepts and ideas. A strong conceptual skills leader works well with abstract and hypothetical ideas. This is central to creating a vision for extension service that the farmers can believe in the service. Despite it is the most important for top management, being a part of operational management having this add extra value to SAAOs' job performance.

4.3SAAOs' Performance as Perceived by the Farmers

The observed score of farmers' satisfaction on extension workers' performance ranged from 5 to 20 against a possible range of 4 to 20. The average score of the satisfaction on extension workers' performance was 17.42 with a standard deviationof1.519 (Table 4.11). Respondents were classified into three categories on the basis of the possible score of performance scores as shown in Table 4.11.

Table 4.11 Distribution of the respondents according to their satisfaction on SAAOs' performance

Categories	Frequency	Percent	Mean	Std
Low(<7 score)	00	00		
Medium(8-15 score)	1	.8	17.42	1.519
High(>16 score)	130	99.2		
Total	131	100		

Analysis of data contained in Table 4.11 revealed that the highest proportions (99.2%) of the respondents had high satisfaction on SAAOs' performance and 0.8% had medium satisfaction with extension workers performance.

The study indicated that the overall satisfaction on extension workers'(i.e., SAAOs) performance of the study area was found highly satisfactory. It also indicates that SAAOs were found very much conscious about their duties and responsibilities. SAAOs are the most important front level extension worker of DAE. Development of agricultural sector depends on the SAAOs' better job performance. It could be

inferred that, if the situation appears same in all over the country, the agricultural development would be satisfactory.

4.4 Contribution of Personality Traits and Skills to SAAOs' Performance

This section describes the contribution of eight independent variables on the performance of the SAAOs as perceived by the farmers. The selected independent variables were neuroticism, extraversion, openness, agreeableness, conscientiousness, technical skill, human skill and conceptual skill. Regression coefficient used to ascertain the contribution of the selected characteristics of SAAOs to their performance. Throughout the study 5% level of probability had been used as the basis for rejecting of any null hypothesis. Contribution of the selected characteristics to the job performance had been shown in the Table 4.12.

Table 4.12 Contribution of personality traits and skills to SAAOs' performance

Predicted variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig	R^2	Adj.R^2	F
	B	Std. Error	Beta					
Constant	6.689	1.066		6.276	0.000			
Agreeableness	0.167	0.062	0.237***	2.691	0.008			
Extraversion	-1.039	0.193	-0.558***	-5.383	0.000			
Openness	-0.136	0102	-0.147[NS]	-1.323	0.188	0.314	0.269	6.977***
Neuroticism	-0.392	0.195	-0.241**	-2.017	0.046			
Conscientiousness	0.032	0.078	0.033[NS]	.417	0.677			
Technical skill	0.396	0.072	0.676***	5.484	0.000			
Human skill	0.580	0.133	0.515***	4.358	0.000			
Conceptual skill	-0.135	0.115	-0.158[NS]	-1.177	0.242			

[NS]=Not significant;***=Significant at 0.1% level of probability;**=Significant at 1% level of probability; *=Significant at 5% level of probability;

Among the eight proposed hypotheses, all but openness, conscientiousness and conceptual skills were found significantly contributed to SAAOs' performance. However, unlike the expectation, extroversion was found to have negative influence performance. Despite extraversion has been considered as a positive contributor of performance, highly extrovert person might be perceived differently by majority of the respondents of the farming community. In addition, conscientiousness was also considered as positive contributor however hypothesis was not supported. Conscientiousness is a skill which describes how organized a person is in his work which however may not be considered as important determinant of higher performance by the farmers. Consistence with the assumption that conceptual skill is not important for lower level of management, its contribution was found non-

significant with performance. Technical skill was found the strongest predictor of performance followed by extraversion, human skill and agreeableness. All these factors can jointly explain 31.4% (R^2=0.314) of the variances in the opinion regarding performance of SAAOs'. The F value (6.977) indicates that the model is significant at 0.1 % level of significance.

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the key findings of the selected characteristics of the personality traits and skills of SAAOs' performances in extension service. Based on the findings, conclusions and recommendations of the study are put forwarded for policy actions. This chapter finally recommends probable research endeavors that can be carried out in future.

5.1 Major Findings

The major findings of the study summarizes below:

5.1.1 Selected characteristics of the SAAOs

Extraversion: The highest proportion (100%) of the growers had in maximum extraversion category.

Agreeableness: The highest proportion (67.9%) of the growers had high agreeableness and the moderately (32.1%) percent of the growers had in agreeableness category.

Conscientiousness: The highest proportion (58%) of the growers had high conscientiousness while (42%) percent of the growers had in moderate conscientiousness.

Openness: The highest proportion (89.3%) of the growers had high openness, and the rest (10.7 %) percent of the growers had in moderate openness.

Neuroticism: The highest proportion (95.4%) of the growers had high neuroticism and the rest (4.6%) percent of the growers had in moderate neuroticism.

Technical skill: The highest proportion (53.4%) of the growers had high technical skill and the rest (46.6%) percent of the growers had in moderate technical skill.

Human skill: The highest proportion (100%) of the growers found in maximum extraversion category.

Conceptual skill: The highest proportion (94.7%) of the growers had high technical skill and the rest (5.3 %) percent of the growers had in moderate technical skill.

Satisfaction on Extension Worker's Performance: The highest proportion (99.2%) of the growers had high performance and the rest (0.8%) percent of the growers had in moderate performance.

5.2 Conclusions

The findings and relevant facts of research work prompted the researcher to draw following conclusions.

i. The performance of SAAOs assessed by farmers was found to be high. The overall performance of the SAAOs indicated that, 0.8% and 99.2% of the respondents moderately and highly satisfied at SAAOs' performance, respectively. On the basis of above findings it may be concluded that overall performance of the SAAOs is satisfactory. So, intensive careful consideration should be maintained by the controlling officers of DAE to improve the performance of the SAAOs.

ii. Technical skill was found the strongest predictor of SAAOs' performance. Therefore, it is important to pay attention to improve the technical skills, set of the extension worker so that they are able to meet up the need of demand-driven extension support to the farmers.

iii. The regression coefficient indicated that agreeableness, conscientiousness, technical skill, human skill had positive relationships with the performance of the SAAOs. So, it could be concluded that the employees with these characteristics should be considered during recruitment process and more motivational and communication skill trainings should be arranged for the existing employees to increase those characteristics.

iv. Unlike the expectation, extraversion was found negatively influenced performance which indicates clients might be not satisfied with the worker who is highly extrovert in nature. It might be the cause of that the clients demand more personalized service from extension worker rather than generalized service.

5.3 Recommendations

5.3.1 Recommendations for Policy Implications

On the basis of observation and conclusions drawn from the findings, the following recommendations are made:

i. Overall, farmers were found satisfied at SAAOs' performance, at least at the study area. However, this level of satisfaction should be sustained and to some extent could be improved providing time-sensitive extension support to the clients. Additionally, it is important to execute time-to-time assessment survey of extension workers' performance in disseminating agricultural innovations. Similar studies should also be carried out in the other parts of the country. Therefore, effectiveness of current extension approach could be justified.

ii. As technical skill was found the strongest predictor of performance, DAE should regularly arrange SAAO trainings on improved farm practices along with motivational training. DAE should also develop facilities so that SAAOs could easily seek technical advice from higher officials in case of time-sensitive information requests made by the farmers.

iii. Agreeableness had significant influenced to the job performance of the SAAOs. Therefore, it is recommended that the extension workers should work with the farmers to improve their source of agreeableness which would help them to enhance their performance.

5.3.2 Recommendations for Further Study

On the basis of scope and limitations of the present study and observation made by the researcher, the following recommendations are made for future study.

i. This study had been conducted in a limited area with few data points. Therefore, it is important to revisit the model in other areas of Bangladesh before developing practical action plan based on the study findings.

ii. This study investigated the contribution of eight characteristics of the professional leaders, particularly (SAAOs) in extension service. Therefore, it is recommended that further study should be conducted with other professional leaders like UAO or AEO for their performance.

iii. The present study was concerned only with the farmers' satisfaction on extension worker's performance. It is therefore suggested that more reliable measurement of the concerned variable should be developed.

iv.   Extraversion was found negatively influenced SAAOs' performance. Therefore, it is important to revisit the study in other parts of the country with different dataset to validate the findings of this study.

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ENGLISH VERSION OF THE INTERVIEW SCHEDULE

Department of Agricultural Extension and Information System

Sher-e-Bangla Agricultural
University Dhaka-1207

An Interview Schedule for the Study Entitled

CONTRIBUTION OF SUB-ASSISTANT AGRICULTURE OFFICERS' PERSONALITY TRAITS AND SKILLS TO THEIR PERFORMANCE IN EXTENSION SERVICE

Name of therespondent: …………………Serial No:…………

Union:………………………………………….

Village:………………….………………….……

(Please provide following information. Your information will be kept
confidential and will be used for research purpose only)

Part-A

1. **Age:** Please mention your current age …………. years.

2. **Education Qualification:** Please mention your educational status from the
   following:

   a. I cannot read and write

   b. I can sign only

   c. I did not go to school but can read and write which will be equal to ……
   class

   d. I read up to ……….. class

3. **Experience in Agricultural Cultivation:** What is your farming experience?
   …….. years.

4. **Annual Family Income:** Please mention your annual family income from the
   following sources.

SL. No.	Sources	Thousand Taka (BDT)
1	Agriculture	
2	Business	
3	Labor	
4	Remittance	
5	Other (pl. specify…………..)	
Total		

Part-B

(In this part, you are requested to evaluate the personality traits of the professional leader of your farm community (Please specify his **Name**:………………..... and **Designation**: …..................) in disseminating agricultural innovation by placing "√" in the box of corresponding column according to the respective items.)

5.   Neuroticism:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who is easily irritated					
2	I see him as someone who gets upset easily					
3	I see him as someone who has frequent mood swings					
4	I see him as someone who gets stressed out easily					

6.   Extraversion:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who feels comfortable with people					
2	I see him as someone who starts conversations with unknown					
3	I see him as someone who talks to a lot of different people					
4	I see him as someone who likes to be at the centre of attention					

7. Openness:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who welcomes new ideas					
2	I see him as someone who has a vivid imagination					
3	I see him as someone who is curious to try out new things					
4	I see him as someone who is full of ideas					

8. Agreeableness:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who sympathizes with others' feelings					
2	I see him as someone who feels others' emotions					
3	I see him as someone who cares others					
4	I see him as someone who takes time out for others					
5	I see him as someone who makes people feel at ease					

9. Conscientiousness:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who gets tasks done with perfection					
2	I see him as someone who follows a schedule					
3	I see him as someone who is organized in his tasks					
4	I see him as someone who strictly maintains quality throughout the work					

Part-C

10. Technical Skill:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who knows very details of his work					
2	I see him as someone who can fix technical problems very well					
3	I see him as someone who is very good at modern agricultural technologies					

11. Human Skill:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who is very easy going					
2	I see him as someone who is very supportive					
3	I see him as someone who values people's concern and interest					
4	I see him as someone who creates an atmosphere of trust					

12. Conceptual Skill:

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I see him as someone who likes to work with new idea/innovation/ technology for achieving goals (e.g., higher yields, quality produce)					
2	I see him as someone whoencourages me to set up realistic goals for my business (here, agriculture)					
3	I see him as someone who always pushes me up for achieving my goals (e.g., higher yields, quality)					

13. **Satisfaction on Extension Worker's Performance:** Please mention how satisfy you are at the professional leader's performance in disseminating agricultural innovation by placing "√" in the box of corresponding column according to the respective items.

Sl No.	Items	Degree of Statement				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I think the professional leader (here, SAAO) performs his duties successfully					
2	I think the professional leader (here, SAAO) performs his responsibilities successfully					
3	I am satisfy at the problem-solving skills of the professional leader (here, SAAO)					
4	Overall, I am satisfy at the work of the professional leader (here, SAAO)					

Thank you very much for your kind cooperation.

Signature of Interviewer with date: