ASSESSMENT OF DESIRED CORE COMPETENCIES AND ITS ACQUISITION BARRIERS OF AGRICULTURAL EXTENSION ADVISORS IN NEPAL

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ABSTRACT

Modern agriculture is the era of 21st century. Competency is an indispensable in every aspect of delivering services to their ultimate users. Competency is integration of skills, knowledge, attitude and behavior that trigger to perform the delegated services in precise and methodical manner. The objective of this study was to identify important core competency required and its acquisition barrier for extension advisors of Nepalese agriculture extension service. Data were obtained using survey questionnaire from officers working at federal, state and local government offices of the selected 18 districts. The questionnaire was composed of open and close-ended questions based on 56 indicators of the nine core competencies. The descriptive statistics were used to analyze the responses. The findings indicated respondent perceptions on its all nine core competencies- program planning, program implementation, communication skills, extension education and information technology, program evaluation, personal and professional development, diversity, subject matter expertise and emotional intelligence from important to very important ranges. Subject matter expertise was perceived most important and communication skills as least one. Subject matter expertise, extension education and information technology skills positively correlate with education. The limited training opportunities and high cost for acquiring training personally are major barriers to gain competencies

Key words: acquisition barrier, Core competency, extension advisor

INTRODUCTION

Nepal is agrarian country with 27.6% contribution of agriculture sector to Gross Domestic Product (GDP) of nation. The development situation is weak even majority people are involved (MoALD, 2018). The national data shows increasing rate of foodstuff import to meet the national food demand, as 15 percent (4.6 million) of population are food insecure (FAO, 2019).There are some promising sectors within agriculture domains like milk production, poultry, tea, vegetables, seed and fisheries (MoALD, 2019). Besides this,

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poverty reduction, malnutrition and food security are the major challenges for extension workers to combat for better future.

After the people movements for more than one decade, Nepal is admired by three tier of government as one central, 7 provinces with 753 local governments. At federal government, the Ministry of Agriculture and Livestock Development (MoALD) is leading body for overall agriculture development in nations (MoALD, 2019). It has three departments namely Department of Agriculture (DOA), Department of Livestock Services (DLS) and Department of Food Technology and Quality Control (DFTQC). The major agriculture extension and development services perform through Department of Agriculture (DOA) and some central level program and projects. In province level, agricultural development is governing through the Ministry of Land Management, Agriculture and Cooperatives (MoLMAC). The province ministry provides extension and development grant service through Agriculture Knowledge Centre (AKC) at district level and laboratory service as divisional office. One AKC covers one or more districts according to coverage authority. Similarly, the agriculture section is primary and front line office for Nepalese farmer providing service at local level. The agriculture officer is chief of municipal level agriculture section, which is under the chief administrative officer of municipality, who perform all the primary work of section from planning to implementation and monitored by chief of municipality (MoALD, 2019).

Extension advisors are the front-line extension workers who provide the services to farmers. The extension advisors may be Agriculture Technician (AT) or Agriculture Officers (AO). The front-line extension advisors are AT or AO working at municipality level. The Extension agents at AKCs or federal government are in second and third tier of service provider respectively (MoALD, 2019). The Nepalese agriculture is still facing the acute shortage of trained human resources. One technician is responsible for an average of 1500 farmers whereas in developed countries the ratio is one technician for 400 farmers (The New Humanitarian, 2013).In such context, to deliver service to farmer's extension advisor must be skillful to perform all task in field.

Competencies are the set of skills that individual possesses to perform certain task. It is combinations of knowledge, skills, attitude and behaviors (Maddy *et al.,* 2002). The determination of required core competence for extension agent is very crucial for planning of technical human resource development. Core competencies are important for managing the need of organization for maintaining the competitive environment (Vakola *et. al.*, 2007). There are various competencies required for extension workers to perform their jobs in field. The competencies requirements depend upon the working conditions, farmer's situations and policy of implementation in field.

There are various competency areas pointed by different researchers. According to Ghimire *et al.,* (2016) there are eight core competencies necessary in Nepalese extension service. The area of competencies are program planning, communication, program implementation, personal and professional development, extension education and informational technology, diversity, program evaluation, and technical subject matter expertise. Similarly, Lakai *et al.,* (2014) segregate the six core competencies are for extension advisor for successful in North Carolina Cooperative extension. The technical human resources have been divided in three layer of government. There were single office (DADO) to deliver all the service with all faculty members but there is one section of agriculture in each municipality with only 1-5 work forces. This deployment of human resources has made more challenging job of extension workers to deliver all the services from single service point. At the mean time, technician to farmer ratio is 1: 1500, which is very tough and challenging for service (IRIN, 2013).

The rewards and barriers are very critical for the competency acquisition among extension advisors. The rewards support much in moving towards personal satisfaction, professional respect and colleague recognition (Shinn & Smith, 1999). A panel of experts identified that in 12 barriers of acquiring the competencies for extension agents, which were majorly organization linked (Boyd, 2003).The major barriers were lack of pleasure time for personal and social activities, increased workload, and higher cost for attainment of skills, lack of monetary supports. The government needs to offer the incentives and rewards to staff for professional development. The extension advisors are responsible for their own professional development the government must make enabling environment for learning to support in job performance (Liles & Mustian, 2004). Similarly, the study of extension advisors in Florida showed financial costs and limited time and job commitments were barrier for the competency development (Harder *et. al.*, 2010).

In the era of globalization, a skilled and knowledgeable person can play crucial role for success. According to Severs *et al.,* (2007), the future extension advisors must be skilled and optimist to deliver the diverse need of farmers. To address forthcoming demand of farmers, extension worker must possess latest knowledge and skills to be acquainted with creative and in recent developments prospective. In Nepal, 753 local governments through agriculture section with officer level at municipal level, 7 provinces through AKC with SMS level and 1 federal government through DOA with up to SMS level extension agents deliver service to farmers. It is very important to identify the extension agents' current level of competency to determine

whether there is any competency gap in order to deliver the quality agricultural extension services. Moreover, identification of required competency is essential for the extension agent as an indispensable element of their serving. These competencies are important for extension agents, in order to deliver day-to-day advisory service to their clients.

A good understanding of competencies required by existing and newly appointed extension advisors is important for overall agriculture development (Owen, 2004). With the vision, this research focused to determine the important and current level of competencies of extension advisors in the Nepalese extension service. It also focused on the barriers of desired competencies development and ways of acquiring it. It is very important to determine additional life skills for successful in extension delivery in the changing context.

The objectives of the study were to determine the important (desired) core competencies and its acquisition barrier for extension advisors in current situation of federal Nepal.

MATERIALS AND METHODS

The data were collected in October to December 2019 in Nepal. The researcher requested the extension agents for voluntarily participation to fill survey questionnaire. Altogether, 72 responses from 18 districts were received covering all provinces.

SURVEY INSTRUMENT

The competency assessment questionnaire comprised of 56 indicators with 9 core competencies. The program planning and communication skills consist of six competencies in each while program implementation, education and informational technology and program evaluation had seven competencies. Similarly, personal and professional development, diversity and subject matter expertise had five competencies each and last emotional intelligence had eight competencies which made total 56 statements of competences. Responses were rated over five-point Likert-type scales designed to examine respondent perceptions. For the importance purpose, 1 equated as “not important”, 2 as “somewhat important”, 3 as “average”, 4 as “important” and 5 as “very important”. Similarly, for competency level, one equated as “very low”, 2 as “low”, 3 as “moderate”, 4 as “high” and 5 as “very high". The data were analyzed using the descriptive.

VALIDITY AND RELIABILITY

Content validity was established with advice and suggestions from experts, which was incorporated in final questionnaire to make all the necessary changes were made to establish the desired level of reliability of

questionnaire. The question was piloted in Sunsari district with 5 extension advisors. Data from the pretesting was analyzed to access the reliability of instrument using the Statistical Package for Social Science 16 (SPSS 16). It was found that Cronbach alfa was 0.92 for 56-item extension competency recording scale.

POPULATION SAMPLING AND DATA COLLECTION

The researcher purposively selected to cover all provinces districts and representatives samples from all over the Nepal to make research wider validity and representatives for whole country. The study population consisted of extension advisors (from Level 6 to 8 & Class III Officers) working in local level agriculture section, province government and its different offices like AKCs, federal government, DoA and different projects. Altogether 72 responses were received from the 18 districts covering all provinces of Nepal.

RESULTS AND DISCUSSIONS

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The survey questionnaire respondents were 84.72% male and 15.28 % female (as in table no. 1). The age ranged from 25 to 57.11 years with an average age of 37 years. The grouping of the age was done in three groups, which is below 35 years, 36 to 50 and above 51 years. The divisions of the respondent were 58 %, 23 % and 18 % respectively.

Table no 1 demographic characteristic of the respondents

Demographics	Frequency	Percent
Sex		
Female	11	15.28
Male	61	84.72
Educational level		
TSLC	9	12.50
Diploma/I.Sc.Ag.	11	15.28
B.Sc.Ag.	20	27.78
M.Sc.Ag.	32	44.44
Age group		
< 35 years	42	58.33
36-50 year	17	23.61
>50 years	13	18.06
Total service duration (Year)		

< 5 year	25	34.72
6 -10 year	21	29.17
10-15 year	6	8.33
16-20	6	8.33
21-25	1	1.39
26-30	8	11.11
31-35	2	2.78
> 36 year	3	4.17
Current post service (year)		
< 5 year	42	58.33
6-10 year	26	36.11
> 10 year	4	5.56
Organizations		
Local level Ag.section	3	4.17
State Gov/AKC	43	59.72
Federal Gov/Projects	26	36.11
Current job position		
Officer L6	15	20.83
Officer L7	19	26.39
Officer L8	13	18.06
Officer Class III	25	34.72
Specialization area		
Ag extension	27	37.5
Agronomy	7	9.72
Horticulture	11	15.28
Plant protection	11	15.28
Planning	14	19.44
Soil science	1	1.39
Fisheries	1	1.39
Total	72	100.00

The majority of the extension advisor (44.44%) has masters' degree or equivalent. Similarly, 27.78% has obtained the Bachelor level. Similarly, 15 percent have Diploma level degree and only 12.5 % have TSLC level degree. The age group composition shows that the average age of extension advisors is 36.97 years. The minimum age of respondents was 25 years while the maximum age was 57.11 years. The major extension agents are below 35 years with 58%. About 24 % of the Extension agent is in 35-50 years age and

18% more than 51 years age. The respondent's average job experience is 11.46 years. The service duration ranges from 1 to 38 years. The majority of the respondents belong to less than 10 years of service duration, which is about 64%. At the same time current service post, average year of experience is 4.7 years. The minimum current post service year range from 0.25 year to 11 years.

The finding showed the 35% of class three officers as majority of participation. Similarly, Officer Level 6, 7 & 8 are 20.83%, 26.39% and 18%. Major respondents was from extension advisor belongs to Agri-extension area with 37.5% shows more than one third of staff composition. The second group belongs to planning 19.44%. Similarly, the other is, plant protection 15.28%, horticulture 15.28% and agronomy with 9.72% as staff composition. The fisheries and soil science have very few in extension services. The majority of the survey participants are from state governments with 59.72% of the total respondent. Secondly, federal government or different projects of it are 36.11%. There were very few respondents from the local level agriculture section of about 4.17%. The major respondents are form state governments, while very few from local level government. Extension advisors in study districts found to be of middle-aged (average age of 37 Year) with male majority (84.72%) which is high to the percentage of female extension workers in Nepal- 6.9% (Ghimire *et. al.*, 2016), -7.7% (worldwide Extension, 2011).Result showed professionals had on having more than decade of experience (M=11.46) While Malaysia and Ethiopia, average was seven years' experience (Belay & Abebaw, 2004) but it was less than-20 years (Ghimire et al., 2016). The current post (officer level) experience of extension advisors shows 4.7 years. This fact indicated that Nepalese extension service is with majority of young officers or promoted from Junior Technicians (JT).Nepal can explore the experience of extension advisors to strengthen the extension delivery service. The perceptions of respondents were all core competences with important to very important to their daily work. The demographics of respondents shows increase in female (15.28%) extension advisors,

PERCEPTION ON IMPORTANT (DESIRED) COMPETENCIES FOR EXTENSION ADVISORS

There are nine area of core competency determined for the Nepalese Extension System based on the previous study (Lakai *et. al.*, 2014); (Ghimire *et. al.*, 2016). The core competency areas are program planning, program implementation, communication skills, extension education and information technology, program evaluation, personal and professional development, pluralism, subject matter expertise and emotional intelligence. There are six unique competencies for each program planning and communication skill, seven unique competency for each program implementation skills, extension

education and information technology, program evaluation, five unique competency for each personal and professional development, pluralism in agriculture, subject matter expertise/technical competency and eight competency for emotional intelligence, which total made 56 competency for 9 core competency.

The top five highest important competency (shown in table no. 2) were basic knowledge about subject matter specialization (M=4.61), ability for need assessment and prioritize (M=4.60), practice of doing monitoring and evaluation (M=4.58), encouragement and motivation to perform work (M=4.57), basic principles of transfers of technology (M=4.56). At the same time, top five lowest important competencies were MS-Excel for data analysis/management (M=4.13), writing success story and lessons learned (M=4.13), cultural respect for communication (M=4.13), pluralism (information about multiple organization giving service to farmers) (M=4.15), knowledge of government administrative and financial rules (M=4.17) information about budget allocation process (M=4.17).

Table 2. Overall competency importance (desired level) by respondents (5 Most and Least important competencies only)

S.N.	Competency	Mean	SD
1	Basic Knowledge about Subject Matter Specialization	4.61	0.57
2	Ability for Need Assessment and Prioritize	4.60	0.69
3	Practice of Doing Monitoring and Evaluation	4.58	0.60
4	Encouragement and motivation to perform work	4.57	0.62
5	Basic Principles of Transfers of Technology	4.56	0.60
6	knowledge of Government administrative and Financial rules	4.17	0.92
7	Information about Multiple Organization giving service to farmers	4.15	0.73
8	Cultural respect for communication	4.13	0.73
9	Writing Success Story and Lessons learned	4.13	0.84
10	MS Excel for Data Analysis/Management	4.13	0.96

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

PERCEPTION OF OVERALL IMPORTANCE (DESIRED LEVEL) OF CORE COMPETENCY

Table 3. Perception of overall importance (desired level) of core competencies

S.N.	Core competencies	No. of statements used to compute mean	Mean	SD
1	Program planning	6	4.35	0.81
2	Program implementation skills	7	4.36	0.69
3	Communication skills	6	4.23	0.80
4	Extension education and IT skills	7	4.32	0.73
5	Program evaluation	7	4.38	0.67

6	Personal and professional development	5	4.31	0.71
7	Pluralism	5	4.27	0.72
8	Subject matter expertise	5	4.44	0.68
9	Emotional intelligence	8	4.37	0.66

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

Table no. 3 showed, Nepalese extension advisors perceived each core competency (desired level) found more than 4 as high importance to extension work.

Table 4.Overall importance (desired level) of core competency by sex

S.N.	Core competencies	Number of statement used	Overall Importance (Desired)				Mean difference (Male-Female)
			Male		Female		
			Mean	Mean	Mean	SD	
1	Program planning	6	4.38	0.94	4.18	0.78	0.20
2	Program implementation skills	7	4.39	0.77	4.21	0.67	0.18
3	Communication skills	6	4.30	0.81	3.83	0.78	0.46
4	Extension education and IT skills	7	4.37	0.69	4.05	0.73	0.31
5	Program evaluation	7	4.45	0.73	3.99	0.63	0.47
6	Personal and professional development	5	4.38	0.66	3.89	0.69	0.49
7	Pluralism	5	4.31	0.65	4.02	0.72	0.29
8	Subject matter expertise	5	4.48	0.63	4.22	0.68	0.26
9	Emotional intelligence	8	4.42	0.65	4.06	0.65	0.37

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

The study (table no. 4) showed that male and female respondents have similar perception on overall importance (desired level) core competency. The male participants have rated subject matter expertise (M=4.48) as most important as same as female respondents (M=4.22). Similarly, both (male and female) respondents rated communication skills as least important (M=4.30 and M=3.83) respectively. The highest variation of male and female respondent's perception on overall importance is in personal and professional development (MD=0.49) and least in program implementation (MD=0.18).

Table 5. Overall importance (desired level) by educational level of respondents

S.N.	Core competencies	No. of statement used	Overall Importance Valued by different educational Level							
			TSLC		Diploma/I.Sc. Ag.		B.Sc.Ag.		M.Sc.Ag.	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	Program planning	6	4.26	0.76	3.86	0.84	4.44	0.82	4.49	0.74
2	Program implementation skills	7	4.27	0.70	4.01	0.75	4.44	0.72	4.46	0.61
3	Communication skills	6	4.09	0.71	4.29	0.74	4.14	0.93	4.30	0.75
4	Extension education and IT skills	7	4.14	0.50	4.30	0.84	4.42	0.69	4.31	0.77
5	Program evaluation	7	3.90	0.53	4.32	0.68	4.54	0.71	4.44	0.60
6	Personal and professional development	5	4.27	0.45	4.18	0.77	4.32	0.83	4.35	0.67
7	Pluralism	5	4.18	0.53	3.98	0.89	4.31	0.77	4.36	0.63
8	Subject matter expertise	5	4.07	0.58	3.98	0.89	4.67	0.62	4.55	0.54
9	Emotional intelligence	8	4.24	0.46	4.20	0.78	4.47	0.67	4.39	0.65

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

The study (table no.5) found that subject matter expertise was rated most important core competency (desired level) by extension advisors having M. Sc. Ag degree (M=4.55) while least the communication skills (M=4.30). Similarly respondents with TSLC qualification rated program implementation and personal and Professional development (M=4.27) as most important and program evaluation (M=3.90) as least. Respondents having B.Sc. Ag degree rated the program evaluation (M=4.54) as high and pluralism (M=4.31) as low importance.

Table 6. Overall Importance (desired level) by working organization of respondents

S. N.	Core Competencies	No. of statement used	Overall importance valued by organization					
			Local level Ag section		State Gov/AKC		Federal Gov/Offices	
			Mean	SD	Mean	SD	Mean	SD
1	Program planning	6	3.83	1.42	4.28	0.83	4.53	0.63
2	Program implementation	7	4.24	0.94	4.32	0.69	4.44	0.66
3	Communication skills	6	2.78	0.88	4.23	0.72	4.39	0.75
4	Extension education and IT skills	7	4.33	0.66	4.34	0.74	4.28	0.73
5	Program evaluation	7	3.62	1.16	4.32	0.64	4.58	0.55
6	Personal and professional development	5	3.47	1.41	4.29	0.66	4.42	0.61
7	Pluralism	5	3.60	1.24	4.22	0.69	4.42	0.62
8	Subject matter expertise	5	4.20	0.94	4.34	0.72	4.62	0.52
9	Emotional intelligence	8	3.92	0.97	4.35	0.62	4.44	0.67

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

The overall importance (desired level as in table no. 6) rating was in ascending order from local level (agriculture section) extension advisors to federal government extension advisors excepting in extension education and IT skills. The least rated core competency was communication skills (M=2.78) and most to program implementation (M=4.24) by local level extension advisors. At state level, pluralism (M=4.22) was least and emotional intelligence (M=4.35) as most important one. At federal government, extension education (M=4.28) was least and subject matter expertise (M=4.62) as highest rating of importance (desired level).

Table 7. Overall importance (desired level) by job level of respondents

S.N.	Core Competencies	No. of statement used	Overall Importance (desired level) by different job level							
			Level 6		Level 7		Level 8		Class III	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	Program planning	6	4.06	0.96	4.48	0.84	4.19	0.77	4.51	0.62
2	Program implementation	7	4.18	0.79	4.53	0.61	4.21	0.68	4.42	0.66
3	Communication skills	6	3.93	0.99	4.16	0.76	4.22	0.62	4.46	0.72
4	Extension education and IT skills	7	4.18	0.69	4.32	0.82	4.37	0.69	4.37	0.71

5	Program evaluation	7	4.04	0.82	4.48	0.61	4.29	0.60	4.57	0.54
6	Personal and professional development	5	4.03	0.87	4.44	0.71	4.28	0.65	4.38	0.58
7	Pluralism	5	3.96	0.86	4.47	0.60	4.05	0.76	4.41	0.58
8	Subject matter expertise	5	4.09	0.77	4.68	0.55	4.18	0.77	4.58	0.53
9	Emotional intelligence	8	4.16	0.69	4.60	0.57	4.26	0.65	4.37	0.67

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

The study (table no. 7) showed that there was increasing trends of overall importance (desired level) for communication skills (M=3.39>4.16>4.22>4.46) for level 6 to 8 and most by class III extension officers and extension education and IT skills (M=4.18>4.32> 4.37=4.37) increased from level 6 to 8 and class III officer rated equal to level 8 officers. The study found program planning (M=4.51), communication skills (M=4.46), program evaluation (M=4.57) by class III officer, program implementation (M=4.53), personal and professional development (M=4.44), pluralism (4.47), subject matter expertise (M=4.68) and emotional intelligence (M=4.60) rated highest by officer level 7 staffs. The extension education and IT skills (M=4.37) were highest rated by level 8 and class III officer.

Table 8. Overall importance (desired level) by age group of respondents

S. N.	Core competencies	No. of statement used	Overall importance (desired level) by age group					
			<35 years		36-50 Years		>50 years	
			Mean	SD	Mean	SD	Mean	SD
1	Program planning	6	4.40	0.81	4.51	0.67	3.99	0.88
2	Program implementation	7	4.41	0.67	4.43	0.65	4.10	0.75
3	Communication skills	6	4.22	0.86	4.24	0.72	4.23	0.72
4	Extension education and IT skills	7	4.30	0.76	4.44	0.59	4.23	0.79
5	Program evaluation	7	4.42	0.68	4.37	0.64	4.27	0.67
6	Personal and professional development	5	4.28	0.75	4.45	0.55	4.22	0.74
7	Pluralism	5	4.35	0.68	4.14	0.62	4.15	0.89
8	Subject matter expertise	5	4.58	0.59	4.40	0.60	4.03	0.87
9	Emotional intelligence	8	4.39	0.69	4.41	0.54	4.22	0.71

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

The study (table no. 8) found that the program evaluation (M=4.42>4.24>4.23) and subject matter expertise skills (M=4.58>4.40>4.03) overall importance

(desired level) decreased over the increase in age group. Program planning, program implementation, communication skills, extension education and IT skills, personal and professional development skills importance increased with increase in age, as rating was higher by 36-50 years age group than < 35 years age group.

Table 9. Overall importance (desired level) by job experience of respondents

S.N.	Core competencies	No. of statement used	Overall importance (desired level) by total job experience					
			<15 years		15-30 Years		>30 years	
			Mean	SD	Mean	SD	Mean	SD
1	Program planning	6	4.44	0.80	4.18	0.82	4.07	0.78
2	Program implementation	7	4.43	0.65	4.18	0.79	4.24	0.66
3	Communication skills	6	4.22	0.83	4.20	0.75	4.31	0.68
4	Extension teaching and IT skills	7	4.34	0.75	4.20	0.73	4.41	0.64
5	Program evaluation	7	4.44	0.67	4.21	0.63	4.35	0.66
6	Personal and professional development	5	4.33	0.73	4.28	0.61	4.20	0.76
7	Pluralism	5	4.29	0.69	4.27	0.66	4.09	0.95
8	Subject matter expertise	5	4.60	0.57	4.08	0.71	4.06	0.87
9	Emotional intelligence	8	4.44	0.64	4.26	0.64	4.11	0.78

Note: Scale:1=Very low; 2=Low; 3=Moderate; 4= High; 5= Very high

The study (table no. 9) found that the overall importance (desired level) rating of program planning (M=4.44>4.18>4.07), personal and professional development (M=4.33>4.28>4.20), pluralism (M=4.29>4.27>4.09), subject matter expertise (M=4.60>4.08>4.06) and emotional intelligence (M=4.44>4.26>4.11) decreased with increase in year of experience. Program implementation, extension education and IT skills, program evaluation was rated more important by <15 years of experience group than 15-30 years of experience group.

BARRIER FOR COMPETENCIES ACQUISITION

Segregating commonly cited barriers by different researchers, 11 barriers were short-listed for the competencies acquisition (Lakai *et. al.,* 2014). The respondents were provided to rate them on a four-point Likert scale from one being "not at all", two for "A little Extent", 3 for "Some Extent" and four as "Great Extent". The mean values close to four that are greatly hampering while less value showed lower level.

Lack of training opportunities (M=3.32), high cost for acquiring the training personally (M=3.26), lack of organizational motivation (M=3.22) and lack of truth information (M=3.21) were identified as most important barriers for competencies acquisition. The lack of time for study (M=2.72), excess program workload (M=2.85) and lack of related reading materials (M=3.00) were the least important barriers for competencies acquisition.

Table 10.Respondents identified barriers for competencies acquisitions

Barriers	Mean	SD
Lack of time for study	2.72	0.89
Excess program work load	2.85	0.90
Lack of organizational motivation	3.22	0.77
Lack of personal motivation	3.07	0.89
Lack of training opportunities	3.32	0.82
Not use of effective training methods	3.10	0.72
Lack of related reading materials	3.00	0.79
No additional financial incentives for additional skilled	3.11	0.86
Lack of truth /reliable information	3.21	0.75
No financial support for gaining skills	3.10	0.75
High cost for acquiring the training personally	3.26	0.82
Overall	33.96	8.97

Note. 1= Not at All; 2=A little Extent; 3=Some Extent; 4= Great Extent

Lack of training opportunities was defined as the major barrier that hinders extension advisor's ability to desired competency acquisition. Other important barriers limiting the desired competency are high cost for acquiring the training personally, lack of organization motivation and lack of truth information, no additional financial incentives for additional skilled. Excepting the high cost for acquiring the training personally, all the three major barriers are (lack of training opportunities, lack of organization motivation and lack of truth information) are part of organizational culture or behavior i.e. it seems poor within the organization.

Lack of time for study, excess program workload and lack of related reading materials are the three least affecting barriers for competency acquisition, which is contrast to finding of adult learners constantly acknowledged lack of

time, but similar as lack of money as barrier (Merriam *et.al.*, 2007). A finding of Shinn & Smith (1990) shorted that increasing the job responsibility and personal cost are barrier to competency acquisition for agriculture and natural resource agent in Texas.

Lack of organization motivation prohibit competency acquisition among extension advisors, which is similar to finding of, organization should consider extension advisors acquisition of competency as important part for their accomplishment (Boyd, 2003).

RELATIONSHIP BETWEEN OVERALL IMPORTANCE (DESIRED LEVEL) AND DEMOGRAPHIC CHARACTERISTICS

The analysis of responses indicated that male and female respondents have similar perception on overall importance (desired level) core competency. The male and female participants have rated subject matter expertise as most important and communication skills as least important. The findings of similar in perception of gender support Burke (2002) but counter (Okwoche et al., 2011 & Ghimire et. al., 2017). The highest variation of male and female respondent's perception on overall importance is in personal and professional development and least in program implementation.

Subject matter expertise was rated most important core competency (desired level) by extension advisors having M. Sc. Ag degree while communication skills as least. Respondents with TSLC qualification rated program implementation, personal and Professional development as most important and program evaluation as least. Such finding is similar to Ghimire (2016) but contrast to Burke (2002). Excepting in extension education and information technology skills, overall importance (desired level) rating was low from local level (agriculture section) and high from federal government extension advisors. All level extension advisors rated communication skill least important. Subject matter expertise is still most important for all extension advisors.

There was increasing trends of overall importance (desired level) for communication skills for level 6 to 8 and most by class III extension officers. Program planning, communication skills and program evaluation rated high by class III officer while program implementation, personal and Professional development, pluralism, subject matter expertise and Emotional intelligence rated highest by officer level 7 . The extension education and information technology skills were highest rated by level 8 and class III officer. It is similar to Namdar *et al.,* 2010 & Ghimire *et al.,* 2017 but contrasts with Burke, (2002) as reported no difference in competency rating by extension workers positions.

Program evaluation and subject matter expertise skills overall importance (desired level) decreased over the increase in age group. Program planning, program implementation, communication skills, extension education and information technology skills, personal and professional development skills importance increased with increase in age, as rating was higher by 36-50 years age group than < 35 years age group. Overall importance (desired level) rating of program planning, personal and professional development, pluralism, subject matter expertise and emotional intelligence decreased with increase in year of experience. Program implementation, extension education and information technology skills, program evaluation is important for younger extension advisors. Brodeur *et al.,* (2011), support the finding who indicated that extension advisors perception of core competencies change with age and experience.

Conclusions

Nepalese extension advisors are in middle age having more than decade of professional experience with majority having master's degree. The result indicated that subject matter expertise as most and communication skills as least important core competency. Overall importance (desired level) core competency of program planning, personal and professional development, pluralism, subject matter expertise and emotional intelligence decreased with increase in year of experience. Overall importance (desired level) core competency of program evaluation and subject matter expertise skills decreased over the increase in age group.

Lack of training opportunities, high cost for acquiring the training personally, lack of organization motivation and lack of truth information are major barriers for competency development. The extension advisors felt exposure visit and in-service training as appropriate method of competency development. The findings of the study could internalize for human resource development.

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