AN EVALUATION OF THE QUALITY OF GOVERNMENT EXTENSION SERVICES IN WEST COAST DISTRICT OF WESTERN CAPE PROVINCE, RSA

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Abstract: The quality of agricultural extension services is perceived to be a key determinant of profitable farming enterprises. Consequently, the South African government has initiated a capacity building programme for extension workers called extension recovery plan in the year 2009, where all extension workers in South Africa were compelled to upgrade their qualifications. The extension recovery plan also aimed to enhance the image of extension and also bring about accountability of the service through the use of Information Communication Technology, where extension are required to document every advice given to farmers. The aim of this study was assess the quality of the extension services in West Coast district with the objective to determine the impact of extension services on the rate of the establishment of start-up farming enterprises, the linkages of emerging farmers to extension workers, frequency of technology dissemination and transfer, the respondents' perception on the quality of extension services and marketing information. The study was conducted at West Coast District of Western Cape Province. The study used both qualitative and quantitative methodology. The data used in the quantitative analysis was collected from 20% of the sample population. Whilst data collected through qualitative methodology was used to explain the outcome of the quantitative method. The test used in analysing the data was a non-parametric test where Friedman Two-way analysis of variance (ANOVA) was applied. The study found that 77.78% of respondents are aware of the extension services. It was also found that the extension workers do have regular contacts with the entrepreneurs (respondents). In addition, it was found that the respondents regard the service of extension workers to be of less value to their farming activities. The study recommends the training of extension workers on impact subjects such as marketing, technology transfer and finances.

Keywords: Agricultural extension, recovery plan, quality, training, contacts

INTRODUCTION

The agricultural sector in Africa is growing and shows great potential (Versi, [20]). According to this author, many African countries are investing in the development of their agricultural sector in order to enhance its sectoral contribution to the national economies and thereby increasing its real terms and percentages of its contribution to gross domestic product (GDP). In the article entitled "Agriculture: Foundation of civilization" Versi, [21] reported that various World Bank studies have indicated that the acceleration of agricultural growth has a potential to reduce poverty four times relatively to other sectors. This author's observation resonates well with African condition because African continent is known for its richness in natural resource capacity (Kabukuru, [13]). Mukandala et al., [17] reported that Africa has failed to reduce its poverty challenges since its independence in 1960s. The authors further reported that during 1990s nearly half of all Africans lived on $1 a day or less and 30 percent of the world's poor lived in Africa.

According to the UN Mellinium Development Goals report for 2011, African children remain the most undernourished in the world (Sithole, [18]). The trends points that sub-Saharan Africa will not meet its hunger reduction target by 2015. On the contrary, South East Asia, East Asia and Latin America are said to be making tremendous progress (Sithole, [18]). The failure of Africa continent to fight poverty and malnutrition happens despite the commitment by African states to enhance agricultural investment through a program initiated by NEPAD called Comprehensive Africa Agricultural Development Programme (CAADP) in 2003. The slow endorsement of CAADP by African countries appears to have adverse impact on its effectiveness regarding elimination of extreme hunger and poverty. In South Africa, hunger and extreme poverty are more pronounced in rural and peri-urban areas (Mmbengwa, [14, 15]). According to this author, these areas rely on agriculture for their livelihood. Therefore, well supported agricultural enterprises may contribute significantly in job creation and consequently alleviate food insecurity. Unfortunately, agricultural activities in poor rural and peri-urban areas of South Africa are dominated by subsistence and land reform produced farmers, who's back ground in farming require massive mentorship through government extension workers. Government extension officers have been used as pillars for capacity building support to all South African farmers. In spite of their services being free and available to all South African farmers, commercial agricultural (highly productive and competitive type of farming in South Africa) do not prefer their services and instead use private extension services for their farming support. It appears that the lack of quality in extension services may act as deterrent for commercial farming sector to utilize it. The extension service in South Africa is organized under South African Society of Agricultural Extension (SASAE). This organization defines roles and responsibilities of extension workers through scientific and conventional methodologies. The role of government extension agents is much debated but little documented (Francis and Rawlins-Branan, [9]). This tends to reduce government extension to the transfer of technical information, ignoring its social and economic role (Ballantyne, [1]; Francis and Rawlins-Branan, [9]). It is generally accepted that the role of these workers should include teaching the farming Enterprises how to increase their productivity (Ballantyne, [1]). The question remains whether government extension officers are capacitated to render these tasks given the level and type of their education (e.g. some of them may have a degree in crop science, but very little knowledge on management and marketing), lack of farming skills and inadequate infrastructure are some of the factors impacting negatively on the success of Enterprises. Modise, ([16]) reemphasized that emerging farmers have no any other option than to use government extension workers, despite their short coming which ranges from lack of experience, inadequate financial resources, weak institutional structures. In addition, Bembridge [2] found that less than one in four extension workers can be considered to have sufficient knowledge to be able to perform their tasks effectively. He also found considerable deficiencies in the quality of extension staff in terms of technical support and administrative control (Bembridge, [2]). Many extension workers lack the necessary knowledge and skills in technology and management to disseminate useful information to farmers (Bembridge, [2]). Fremy [10] reported that extension services all over sub-Saharan Africa are woefully inadequate in terms of numbers, training and the needed infrastructure and other necessities. Farming Enterprises in South Africa are limited in financial management and extension personnel. Extension officers are unable to provide these Enterprises with informed guidance on financial and management matters (Groenewald, [11] and FAO [8]. Drawing from a variety of the reports, it may be concluded that extension workers are failing to meet the expectations of the agricultural business community in South Africa (URS, [19]; CSD, [6] and Dinucci A and Fre Z [5]. Therefore, the extent to which the extension service has capacity to serve the agricultural community in South Africa remains an important challenge. The objectives of the study were to determine the following: (a) The farming experiences of the emerging farming entrepreneurs. (b) The linkages of the entrepreneurs with extension services workers. (c) The frequency of consultation between entrepreneurs and extension workers. (d) The perception of the respondents regarding the service delivered by extension workers. (e) The referral by the entrepreneurs. (f) The provision of marketing and financial information by extension workers

METHODOLOGY

The study was conducted in the West Coast district municipality located in the Western Cape province of South Africa (Wikipedia, [22]).. According to Wikipedia, [22], this municipal district has a total area of 31, 101 square kilometers (12, 008sq mi). Figure 1, shows that the municipality is comprised of six local municipalities (Matzikama, Cederberg, Bergrivier, Saldanha Bay, Swartland and West Coast District Management area).

Figure 1: Map for the West Coast district Municipality

Table 1: The distribution of individual farmers and group members in Western Cape Province (Source: Department of Agriculture, Western Cape Province: 2010)

District	Individual Farmers	Group Members
Cape Metro Area	163	128
Cape Winelands	142	4 459
Central Karoo	13	401
Eden	110	744
Overberg	80	880
West Coast	173	2 551
Total	**681**	**9 163**

N=36 (20%)

Table2: Frequency distribution of respondents in terms of gender

Category	Frequency table: Gender			
	Count	Cumulative Count	Percent	Cumulative Percent
Male	22	22	61.11111	61.1111
Female	14	36	38.88889	100.0000
Missing	0	36	0.00000	100.0000

Table 3: Frequency distribution of respondents in terms of qualification

Category	Frequency table: Qualification			
	Count	Cumulative Count	Percent	Cumulative Percent
Primary	20	20	55.55556	55.5556
Secondary	12	32	33.33333	88.8889
FET	4	36	11.11111	100.0000
Missing	0	36	0.00000	100.0000

Keys: FET= Further education and training

Table 4: Cross tabulation of distribution of respondents in terms of gender and qualifications

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)				
	Gender	Primary 1	Secondary 2	FET 3	Row Totals
Count	Male	10	10	2	22
Column Percent		50.00%	83.33%	50.00%	
Row Percent		45.45%	45.45%	9.09%	
Total Percent		27.78%	27.78%	5.56%	61.11%
Count	Female	10	2	2	14
Column Percent		50.00%	16.67%	50.00%	
Row Percent		71.43%	14.29%	14.29%	
Total Percent		27.78%	5.56%	5.56%	38.89%
Count	All Grps	20	12	4	36
Total Percent		55.56%	33.33%	11.11%	

Table 5: Frequency distribution of the farming experience of respondents

	Frequency table			
Category	Count	Cumulative Count	Percent	Cumulative Percent
1-3 yrs	2	2	5.55556	5.5556
3-6yrs	12	14	33.33333	38.8889
6yrs+	22	38	61.11111	100.0000
Missing	0	36	0.00000	100.0000

Table 6: Cross tabulation of farming experience relative to their gender

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)				
	Gender	1-3yrs 1	3-6yrs 2	6yrs + 3	Row Totals
Count	Male	2	6	14	22
Column Percen		100.00%	50.00%	63.64%	
Row Percent		9.09%	27.27%	63.64%	
Total Percent		5.56%	16.67%	38.89%	61.11%
Count	Female	0	6	8	14
Column Percen		0.00%	50.00%	36.36%	
Row Percent		0.00%	42.86%	57.14%	
Total Percent		0.00%	16.67%	22.22%	38.89%
Count	All Grps	2	12	22	36
Total Percent		5.56%	33.33%	61.11%	

Table 7: Frequency distribution of respondents' knowledge regarding the available extension support services

	Frequency table			
Category	Count	Cumulative Count	Percent	Cumulative Percent
Yes	28	28	77.77778	77.7778
No	8	36	22.22222	100.0000
Missing	0	36	0.00000	100.0000

The Mooreesburg is the head office of the district municipality and is situated at 33˚10'S 18˚40'E33.167˚S 18.667˚E latitude, 33˚10'S 18˚40'E33.167˚S 18.667˚ East longitude. West Coast

District Municipality has a total population of 286, 751 with a density of $9.2/km^2$ (23.9/sq mi) and a households of 76,215. The population varied in terms of race, with coloured having the highest (71.64%) population, followed by white (19.12%). Blacks and India or Asian have the least population (8.96% and 0.27% respectively). According to Jacobs and Makaudze, [12], West Coast district's livelihood is highly (80%) reliant to farming sector. These authors reported that the government land reform programme has so far done little to improve the livelihoods of rural households tied to agriculture in this region. Due to high level of poverty, the majority of residents rely on income from farming and government grants. The research used both qualitative and quantitative methods. Prior to the commencement of the data collection, an intensive desktop study, involving the use of old and recent published materials was explored. The desktop study prioritized both national and international accredited journals information resources. With regard to qualitative methodology, participatory forums were used to delineate the research context and premise, whilst the quantitative methods were utilized to measure variables under investigation.

A representative (20%) sample size was pre-determined by using expert evaluation.   The functional enterprises aged more than a year was identified and categorized during data collection. Consequently, eighteen (N=36) enterprises were selected across all the municipalities (Table 1). The reliability test and repeatability measures were determined. Both descriptive and inferential analyses were conducted. According to Diamantopoulos and Schlegelmilch, [4] and Eiselen et al., [7], analysis of the data should be well planned in order to provide the relevant outcome. In order to conform to the directives of the above authors, the choice of the analyses used in this research followed the guidelines mentioned below: (a) That the analysis should ensure that only relevant analysis is undertaken. (b) That the analysis objectives provide a check on comprehensiveness of the analysis (c) That the analyses should objectively help avoid redundancy.

 The analysis chosen for this data was mainly non-parametric tests Friedman Two-Way Analysis of Variance (ANOVA). The statistical software during analysis was Statistica.

Model Specification

Given data $\{x_{ij}\}_{n \times k}$, that is, a tableau with *n* rows (the *blocks*), *k* columns (the *treatments*) and a single observation at the intersection of each block and treatment, calculate the ranks *within* each block. If there are tied values, assign to each tied value the average of the ranks that would have been assigned

without ties. Replace the data with a new tableau $\{r_{ij}\}_{n \times k}$ where the entry r_{ij} is the rank of x_{ij} within block *i*.

Find the values:

$$\bar{r}_{.j} = \frac{1}{n} \sum_{i=1}^{n} r_{ij}$$

$$\bar{r} = \frac{1}{nk} \sum_{i=1}^{n} \sum_{j=1}^{k} r_{ij}$$

$$SS_t = n \sum_{j=1}^{k} (\bar{r}_{.j} - \bar{r})^2$$

$$SS_e = \frac{1}{n(k-1)} \sum_{i=1}^{n} \sum_{j=1}^{k} (r_{ij} - \bar{r})^2$$

$$Q = \frac{SS_t}{SS_e}$$

The test statistic is given by . Note that the value of Q as computed above does not need to be adjusted for tied values in the data.

Finally, when n or k is large (i.e. n > 15 or k > 4), the probability distribution of Q can be approximated by that of a chi-square distribution. In this case the p-value is given by $\mathbf{P}(\chi^2_{k-1} \geq Q)$. If n or k is small, the approximation to chi-square becomes poor and the p-value should be obtained from tables of Q specially prepared for the Friedman test. If the p-value is significant, appropriate post-hoc multiple comparisons tests would be performed.

RESULTS AND DISCUSION

In this section, the results of the quality, effectiveness and accessibility of the government extension services will be reported. The section has two sub sections. The first sub-section deals with biographical information of the sample population, followed by the descriptive and inferential analyses.

BIOGRAPHICAL INFORMATION

Demographics

According to Table 3, the female respondents were in minority (38.89%), whilst the male respondents were in majority (61.11%).

Table 3, reports on the distribution of the respondents based on qualifications. According to Table 3, the majority (55.55%) of the respondents has the lowest educational qualification and very few (11.11%) respondents have further education qualifications

(FET). These results appears to indicate that only the least educated residents of the West Coast District are interested in making their career in emerging farming. It may also be inferred that the more educated the residents, they more marketable in other sections of industries. Furthermore, it may also be deduced that the more educated the residents the more they regard emerging farming as high risk enterprises and thus refrain from being involved in this type of enterprise.

Table 4 provides the in depth information regarding the distribution of gender and qualification. Within each gender composition, the representation varies according to the qualifications achievements by respondents. It appears that the majority of the respondents (55.56%) regardless of their gender have the lowest qualifications. Those respondents with high qualification are in minority (5.56%) regardless of their gender.

Descriptive Analysis

To measure the start ups and farming experience of emerging farmers

Table 5 presents the frequency distribution of the respondents in terms of their experience. Whilst table 6, represents the cross tabulation relative to gender. In view of the aforementioned tables, it is clear that more (61.11%) respondents are in the category of farmers that have 6yrs and above. It is also clear that those that are entering these enterprises are the lowest as compared to the rest. This appears to indicate that the majority of respondents are reluctant to enter into emerging farming enterprises.

According to table 6, Males constitute the majority of respondents {male (5.56%) vs Female (0.00%)} who are interested in starting emerging farming. This may be as results that in the absence of any source of income, males as bread winners looked at the emerging farming as the alternative source of income. It also appears that female gets interested to this sort of enterprises when they have observed as certain level of success but their involvement in this type of business is highly insignificant as compared to the male counterparts { Male (61.11%) vs Female (38.89%)}.

To measure the linkages of emerging farmers to extension services

According to table 7, the majority of respondents (77.78%) are aware of the availability of these services to them. It can be deduced that very few respondents (22.22%) are not aware of this services.

In view of table 8, males (50.00%) are more knowledgeable of the extension services than the

female (27.78%) counterpart. This is not surprising since, it was observed earlier on that males are more experienced and more interested in establishing or starting this type of farming enterprises.

To evaluate the frequency of visit by extension services workers to emerging farmers

Table 9, indicates that the majority (50.00%) of extension officers consults these emerging farming entrepreneurs bi-weekly, this is followed by 27.78% of consultation bi-monthly. The results report that both weekly and monthly consultations are quite rare (11.11%). These results indicate that the frequency of consultation is not regular and in light of the educational capacity of these entrepreneurs, it may be reasonable to expect that the frequency should be at least be high on the weekly basis. This expectation may be because the Western Coastal district is the highest number of new farmers as compared to other district such as Eden district and therefore, the frequency of farmers to extension offices and vice versa may be helpful in ensuring productivity and efficiency in farming due to enhanced capacity building (which accompanies the consultation processes).

Table 9, shows the cross tabulation of the frequency of consultation by extension officers to emerging farmers. It is clear that weekly and monthly consultations are equal (5.56%) regardless of gender. On the contrary, the bi-weekly consultation favours the male respondents (44.44%) as compared to the female one (5.56%). Bi-monthly consultation appears to favour female respondents (22.22%) in the expense (5.56%) of male counterparts. On the overall, the consultation processes in these enterprises favours the male (72.22%) enterprises than the female enterprises (27.78%). This appears to define why females do not have more interest in establishing farming enterprise in this district. This may be because they are able to observe that very little support is provided to the females who are already in the business and therefore, consider the business environment as less supportive and risky.

To determine the perception of the respondents regarding the service delivered by extension workers

According table 10, it appears that the respondents regards the services of the government extension officers' services to be of poor quality, with more respondents regarding the quality to be poor (33.33%) and few respondents regarding the services to very poor (11.11%). Other respondents regard the services to be good and excellent (22.22%).

Table 8a: Cross tabulation on respondents' knowledge of extension services.

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)			
	Gender	Yes 1	No 2	Row Totals
Count	Male	18	4	22
Column Percent		64.29%	50.00%	
Row Percent		81.82%	18.18%	
Total Percent		50.00%	11.11%	61.11%
Count	Female	10	4	14
Column Percent		35.71%	50.00%	
Row Percent		71.43%	28.57%	
Total Percent		27.78%	11.11%	38.89%
Count	All Grps	28	8	36
Total Percent		77.78%	22.22%	

Table 8b: Frequency distribution of the contacts to the respondents

	Frequency table			
Category	Count	Cumulative Count	Percent	Cumulative Percent
Weekly	4	4	11.11111	11.1111
Bi-weekly	18	22	50.00000	61.1111
Monthly	4	26	11.11111	72.2222
Bi-monthly	10	36	27.77778	100.0000
Missing	0	36	0.00000	100.0000

Table 9: Cross tabulation of the contacts of extension officers to the emerging farmers

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)					
	Gender	Weekly 1	Bi-weekly 2	Monthly 3	Bi-monthly 4	Row Totals
Count	Male	2	16	2	2	22
Column Perce		50.00%	88.89%	50.00%	20.00%	
Row Percent		9.09%	72.73%	9.09%	9.09%	
Total Percent		5.56%	44.44%	5.56%	5.56%	61.11%
Count	Female	2	2	2	8	14
Column Perce		50.00%	11.11%	50.00%	80.00%	
Row Percent		14.29%	14.29%	14.29%	57.14%	
Total Percent		5.56%	5.56%	5.56%	22.22%	38.89%
Count	All Grps	4	18	4	10	36
Total Percent		11.11%	50.00%	11.11%	27.78%	

Table 10: Frequency distribution extension service rating by respondents

Category	Frequency table: Q3.6			
	Count	Cumulative Count	Percent	Cumulative Percent
Very Poor	4	4	11.11111	11.1111
Poor	12	16	33.33333	44.4444
Average	2	18	5.55556	50.0000
Good	8	26	22.22222	72.2222
Excellent	8	36	22.22222	94.4444
Missing	0	36	0.00000	100.0000

Table 11: Cross tabulation of distribution of extension service rating by respondents

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)						
	Gender	Very Poor 1	Poor 2	Average 3	Good 4	Excellent 5	Row Totals
Count	Male	4	6	2	6	4	22
Column Percent		100.00%	50.00%	100.00%	75.00%	50.00%	
Row Percent		18.18%	27.27%	9.09%	27.27%	18.18%	
Total Percent		11.11%	16.67%	5.56%	16.67%	11.11%	61.11%
Count	Female	0	6	0	4	4	14
Column Percent		0.00%	50.00%	0.00%	25.00%	50.00%	
Row Percent		0.00%	42.86%	0.00%	14.29%	28.57%	
Total Percent		0.00%	16.67%	0.00%	5.56%	11.11%	38.89%
Count	All Grps	4	12	2	8	8	36
Total Percent		11.11%	33.33%	5.56%	22.22%	22.22%	

Table 12: The frequency distribution of referring extension services to other farmers

Category	Frequency table: Q3.8			
	Count	Cumulative Count	Percent	Cumulative Percent
Yes	24	24	66.66667	66.6667
No	8	32	22.22222	88.8889
No comment	4	36	11.11111	100.0000
Missing	0	36	0.00000	100.0000

Table 13: Cross tabulation of referring extension services to other farmers

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)				
	Gender	Yes 1	No 2	No comment 3	Row Totals
Count	Male	14	4	4	22
Column Percent		58.33%	50.00%	100.00%	
Row Percent		63.64%	18.18%	18.18%	
Total Percent		38.89%	11.11%	11.11%	61.11%
Count	Female	10	4	0	14
Column Percent		41.67%	50.00%	0.00%	
Row Percent		71.43%	28.57%	0.00%	
Total Percent		27.78%	11.11%	0.00%	38.89%
Count	All Grps	24	8	4	36
Total Percent		66.67%	22.22%	11.11%	

Table 14: Frequency distribution of whether extension officers provide marketing information to emerging farmers

	Frequency table			
Category	Count	Cumulative Count	Percent	Cumulative Percent
Yes	10	10	27.77778	27.7778
No	20	30	55.55556	83.3333
No Comment	6	36	16.66667	100.0000
Missing	0	36	0.00000	100.0000

Table 15: Cross tabulation on the provision of marketing information by extension workers

	Summary Frequency Table Marked cells have counts > 10 (Marginal summaries are not marked)				
	Gender	Yes 1	No 2	No comments 3	Row Totals
Count	Male	6	14	2	22
Column Percent		60.00%	70.00%	33.33%	
Row Percent		27.27%	63.64%	9.09%	
Total Percent		16.67%	38.89%	5.56%	61.11%
Count	Female	4	6	4	14
Column Percent		40.00%	30.00%	66.67%	
Row Percent		28.57%	42.86%	28.57%	
Total Percent		11.11%	16.67%	11.11%	38.89%
Count	All Grps	10	20	6	36
Total Percent		27.78%	55.56%	16.67%	

Table 16: Factor matrix

Variable	Factor Loadings (Varimax normalized) Extraction: Principal axis factoring (Marked loadings are >.700000)	
	Factor 1	Factor 2
Q3.1	0.256521	-0.426450
Q3.2	0.188976	0.045721
Q3.3	-0.549986	-0.120408
Q3.4	0.560260	-0.109071
Q3.6	-0.709173	0.014925
Q3.7	0.929230	-0.107799
Q3.8	0.594099	0.096206
Q3.10	-0.051959	-0.309254
Q3.11	0.134350	0.536005
Q3.13	0.312657	-0.700864
Q3.19	0.458279	0.518328
Q3.20	-0.002894	0.526384
Q3.21	0.289770	0.925000
Q3.22	-0.343517	-0.015178
Expl.Var	2.967740	2.507192
Prp.Totl	0.211981	0.179085

Table 17: Item- total statistics

variable	Summary for scale: Mean=27.7778 Std.Dv.=2.43879 Valid N:36 Cronbach alpha: -.62012 Standardized alpha: --- Average inter-item corr.: -.00113				
	Mean if deleted	Var. if deleted	StDv. if deleted	Itm-Totl Correl.	Alpha if deleted
Q3.1	25.22222	5.728395	2.393407	-0.163793	0.000000
Q3.2	26.55556	5.135802	2.266231	0.163795	0.000000
Q3.3	25.22222	5.728395	2.393407	-0.234401	0.000000
Q3.4	26.16667	5.138889	2.266912	0.108921	0.000000
Q3.6	24.50000	7.916667	2.813657	-0.538934	0.188369
Q3.7	26.00000	5.111112	2.260777	-0.166442	0.000000
Q3.8	26.33333	4.333333	2.081666	0.285738	0.000000
Q3.10	26.50000	5.694444	2.386303	-0.175232	0.000000
Q3.11	24.83333	4.583333	2.140872	0.127571	0.000000
Q3.13	25.88889	5.209876	2.282515	-0.008228	0.000000
Q3.19	26.16667	5.916667	2.432420	-0.226445	0.000000
Q3.20	26.27778	5.422840	2.328699	-0.023857	0.000000
Q3.21	26.27778	5.089506	2.255993	0.123129	0.000000
Q3.22	25.16667	5.250000	2.291288	-0.058827	0.000000

Table 18: Friedman's two-way analysis of variance

Variable	Friedman ANOVA and Kendall Coeff. of Concordance ANOVA Chi Sqr. (N = 36, df = 12) = 84.65225 p = .00000 Coeff. of Concordance = .39191 Aver. rank r = .35614			
	Average Rank	Sum of Ranks	Mean	Std.Dev.
Q3.2	4.19444	75.5000	1.222222	0.427793
Q3.3	9.27778	167.0000	2.555556	1.041618
Q3.4	6.33333	114.0000	1.611111	0.501631
Q3.6	10.02778	180.5000	3.277778	1.564517
Q3.7	6.27778	113.0000	1.777778	1.215370
Q3.8	5.33333	96.0000	1.444444	0.704792
Q3.10	4.25000	76.5000	1.277778	0.751904
Q3.11	10.80556	194.5000	2.944444	0.802366
Q3.13	7.22222	130.0000	1.888889	0.676400
Q3.19	6.33333	114.0000	1.611111	0.501631
Q3.20	5.63889	101.5000	1.500000	0.514496
Q3.21	5.69444	102.5000	1.500000	0.514496
Q3.22	9.61111	173.0000	2.611111	0.777544

According to table 11, the majority of male respondents confirm that the service rendered by government extension services is very poor. On the contrary, female respondents appear to disagree that the services of these workers are very poor. Both respondents regardless of gender are in agreement that extension services are poor. In addition, both male and female (11.11%) conceded that some extension workers are delivering excellent services. These results appear to provide a picture that respondents have a varied perception regarding the quality of services rendered by extension workers. The varied response may be interpreted to mean that the emerging farmers do not know how to measure the quality of the services from the extension workers. This is not surprising, as the majority of these farmers are poorly educated and therefore, do not have a scientific understanding farming business.

To determine whether the respondents can recommend the extension service to other farmers

The majority of respondents (66.66%) agree that they will recommend the farmers to the extension service workers. On the contrast, only 22.22% indicated that they would not be able to recommend that others farmers should use the services of these workers.

According to Table 13, the high number of male respondents (38.89%) confirms that they would refer other farmers to government extension workers. Whilst only 27.78% of female respondents agree that they would do the same.

To determine whether the respondents have marketing and financial information from extension officers

Table 14 indicates that the majority (55.55%) of extension officers do not provide marketing information to the emerging farmers. Only 27.78% of the respondents indicate that they have received marketing information from extension officers. In view of the respondents' results, it can be inferred that marketing information (information that is crucial in farming productivity and sustainability) is not adequately provided by these agents. Without adequate marketing information, it may be quite difficult for farmers to make any profit.

Table 15 shows that both males and females respondents (38.89% and 16.67% respectively) are in agreement that extension workers do not provide emerging farmers with marketing information. This appears to indicate that extension officers have little knowledge regarding marketing.

Factorial Analysis

The factorial analysis (Principal axis normalized) was conducted on 14 questions. An orthogonal rotation (Varimax) was used. The factor analysis yielded two factors explaining 70% of the total variation in the evaluation of the government extension workers by individual enterprises. The questions with high loadings on the first factor are the following questions 3.6 and 3.7 with the following loading values 71% and 93% respectively. On the other hand, the questions with high loadings on the second factor are the following question 3.13 and 3.21 with 70%

and 93% loading values respectively.

Table 17, indicates the total items that measures the same construct. According the results, it appears that none of the questions under consideration measures the same variables. Therefore, all these questions are unrelated and less correlated.

Inferential analysis

Table 18 shows the results of Friedmans two-way ANOVA to the responses obtained. The inferential analysis was conducted two tests whether there are differences between the set of the measures. The results indicate that there is a significant difference in the measurements of the government extension workers' services quality used in assessing the extension services for coastal district (N=36, $df_{12, 85}$P < 0.05). Indeed judging from the results, question 3.3, 3.6, 3.11 and 3.22 have higher ranks relative to other questions. It appears that the quality of government extension services is highly variables, with four out fourteen (31%) extension services being of good quality. This implies that the majority (69%) of government extension services offered to the West coastal district are of moderate to poor quality. Therefore, it may be best to suggest some remedial action in order to ensure that the quality of such services be improved.

CONCLUSION

The findings of this study infer that the value of the extension services is of lower quality such that it may be difficult for it to positively impact on the development and the profitability of farming ventures under consideration. The study also found that the critical area where the extension officers are unable to impacted is around marketing, technology transfer and finance. This problem persists despite the positive linkages between extension workers and entrepreneurs. In addition, the frequent contacts between the extension workers and entrepreneurs should have had positive impact but on the contrary, the quality of services remained poorly rated. Furthermore, it appears that the national roll out of the extension recovery plan since 2009 by Department of Agriculture Forestry and Fisheries has not precipitated to this district, since the district under consideration has not received any benefit of such intervention. The study recommend that the extension workers in the district should be subjected to special capacity building program that may include amongst others, the use of mentors from universities and also special designed training programs that specifically deals with management of farming enterprises.

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