RESEARCH ARTICLE

Determinants of role performance of veterinary assistant surgeons of Andhra Pradesh

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Abstract A Study was conducted to identify the factors affecting role performance of VASs in Andhra Pradesh in India using ex-post facto research design. Data were collected from 220 respondents through pretested interview schedule selecting 20 VASs randomly from eleven selected districts in Andhra Pradesh. The data were subjected to correlation and multiple regressions to determine the factors of role performance. Self rating technique was adopted to measure the role performance using a schedule specially prepared for the study. Results revealed that among the group 43.00 per cent of the respondents were medium performers. Out of 16 independent variables, work motivation, availability of physical facilities, organizational job stress (negative), persistence disposition, participativeness and timeliness of availability were found dominating in estimation of role performance of VASs. It is proposed that administrators need to pay more attention on elements of human resource management strategy especially in terms of awards, rewards and appreciation of their hard work and initiate appropriate measures to improve the facilities and resources of VASs for livestock service delivery to the needy farmers. Therefore, apart from confirming a theoretical proposition, the findings of this study are likely to have significant implication in the development of Animal Husbandry sector.

Keywords : Role performance, Veterinary Assistant Surgeons, Factors, India

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Introduction

Animal husbandry is the backbone of Indian rural economy with almost two thirds of rural households engaged in livestock farming. Therefore, ensuring a progressive and viable livestock sector is critical for reducing poverty, enabling food security, and managing natural resources in a sustainable fashion. But, persisting poor productivity and quality of livestock production is still a main concern in India. In this context, the challenge today for extension is not simply to transfer knowledge and information but to foster and implement innovation appropriate at the farm level to fulfil the increasing demands of livestock production in a sustainable manner. These challenges exert tremendous pressure on animal husbandry organizations too. The veterinarians are the lifeline of the livestock extension system in India. In an era where agricultural extension has the role of not only meeting the increased production but also conserving and protecting natural resource bases, the effectiveness of extension workers' performance has become very important (Ghosh and Vijayaragavan, 2003). This is an undisputed fact that, high productivity and performance cannot be realized without the employee support. To get a high level of performance, organizational management needs to induce people to channel their behaviour towards a better course of action to utilize their ability and the resources available to them for organizational objectives. The veterinarians working in the Animal Husbandry Department (AHD), Andhra Pradesh, are not an exemption of this phenomenon. The organizational productivity is the resultant outcome of employees' performance being influenced by socio-personnel, psychological and organizational factors. All these factors believed to have direct or indirect influence over role performance of the individual ultimately realization of organizational goals. Hence, it was felt necessary to determine the factors affecting role performance of Veterinary Assistant Surgeons (VASs) and to find out relationship between role performance and profile characteristics. From the range of analysis presented on various factors influencing the performance of veterinarians, the policy makers, administrators

and other officials in State Animal Husbandry Department at different levels can make a choice which is appropriate for their circumstances thereby maintain or improve the performance of the VASs manipulating the related factors.

Materials and Methods

The present study was conducted in eleven districts in Andhra Pradesh using ex-post-facto research design. Data were collected using pretested interview schedule from 220 VASs working in the AHD selecting 20 respondents randomly from each district. The 16 independent variables considered for the study were age, education, service experience, span of control, trainings undergone, participativeness, technical knowledge, work involvement, work motivation, self-esteem, job satisfaction, attitude towards organization, persistence disposition, physical facilities availability and utilization, timeliness of availability of facilities and organizational job stress. Dependent variable "role performance" was operationalized as the manner in which different tasks as expected from respondents are performed actually in the practical situations. Based on the earlier studies, VASs job chart and consultation with responsible authorities in the AHD, five major role areas mainly expected by respondents and list of main items were listed. Accordingly, 9 items in animal reproduction, 7 in health cover, 5 in inspection of slaughter houses, 5 in administration and 11 in extension were selected and a five point continuum ranging from frequently, often, sometimes, seldom and never with weightages of 5, 4, 3, 2 and 1 were used for assessing the role performance of VASs by self ratings. The possible highest and lowest scores over 37 job items ranged from 37- 185. The data collected were coded, compiled and analyzed using cumulative square root of frequency, correlation and multiple regressions.

Results and Discussion

Perceived role performance of VASs on self rating

The role performances of VASs in the study area was mostly (43.00 per cent) of medium level followed by 24.00 per cent and 33.00 per cent who belonged to high and low categories of role performance, respectively. The range of performance score was 115 to 183 with a mean of 146 and standard deviation of 15.55 (Table 1). Wide variation among VASs in rating their own performance may have the probable reasons such as high span of control, facilities and resource constraints, work motivation, organizational climate, job satisfaction, attitude towards organization and persistence disposition. The tendency to over- rate was guided by the self acclaim and underrate by self condemnations (Rao, 1982). Since in this data there was neither a preponderant of high or low self - raters, it can safely be inferred that the respondents were quite objective in recording the rating of their own performance.

Table 1: Perceived role performance of VASs on self rating

Category	Frequency	Percentage
Low (<137)	73	33.00
Medium(137-158)	95	43.00
High (>158)	52	24.00

Mean = 146 and SD =15.55

By and large, the study revealed that the performance of the VASs was to a medium extent. The presence of 24.00 per cent VASs with a high level of performance is undoubtedly an asset for the organization. But, it is cause of serious concern that mediocrity rather than excellence is the level of performance of the majority. It is nothing but disquieting to bear in mind a burdensome liability of the poor performers. Strong administrative and other remedial measures were warranted to deal with poor performers and suitable motivational techniques for uplifting the medium performers.

Relationship between Independent Variables and Role Performance of VASs

The data were subjected to zero order correlation to analyze the nature of relationship of selected independent variables with dependent variable, role performance. The values of correlation coefficient (r) were then tested for their statistical significance. The relevant findings of the relational analysis are presented in Table 02. The results showed that out of 16 selected independent variables, twelve variables namely training received, technical knowledge, work motivation, self esteem, work involvement, job satisfaction, persistence disposition, attitude towards organization, participativeness, availability of physical facilities and timeliness of availability of facilities exhibited positive and significant relationship ((P <0.01), whereas, organizational job stress showed negative significant relationship ((P <0.01) with role performance of VASs. Remaining four variables namely age, education, service experience and span of control showed positive and non-significant association.

Age : Based on the relationships arrived from the correlation analysis, it could be observed that age of the VASs was positively but non-significantly associated with their role performance. This positive association may be due to the fact that in this increasingly competitive world on-field job performance requires hands on experience to tackle the multidisciplinary activities. Again, with growing years, the VASs get experienced and adopted to routine activities. This result is in agreement with the findings reported by Singh (1978), (Kherde and Sahay (1981), Singh (1982) and

Table 2 : Correlation analysis of the independent variables with role performance

Variable number	Variable Name	Role performance(Y)
		"r" value
X1	Age	0.1166
X2	Education	0.0479
X3	Service experience	0.0492
X4	Span of control	0.0521
X5	Trainings undergone	0.4313**
X6	Work motivation	0.8671**
X7	Technical knowledge	0.4753**
X8	Work involvement	0.8041**
X9	Persistence disposition	0,7163**
X10	Self-esteem	0.5369**
X11	Availability of physical facilities	0.8306**
X12	Timeliness of availability of facilities	0.5050**
X13	Attitude towards organization	0.4951**
X14	Participativeness	0.4581**
X15	Job satisfaction	0.6117**
X16	Organizational job stress	-0.6375**

**Significant at 0.01 probability

Siddaramaiah and Gowda (1987) who reported that association between these variables were non-significant. However, Saharia (1990), Thomas (2008) and Mishra *et al.* (2011) found that age has negative and highly significant effect on role performance.

Service Experience: The positive association of service experience with role performance of VASs observed in this study could be due to the reason that with the increase in experience, VASs might have acquainted the differentiating ability to perform selected activities with the available resources and manpower. This result was in conformity with the findings of Rao and Sohal (1985), Reddy *et al.* (1995) and Manjunath and Shashidahra (2011) those who reported that there was non- significant association between experience and role performance. Rao and Sohal (1985) pointed out that veterinary surgeons with more experience were performing low in achieving the physical targets. In the present investigation there were VASs with as many as 21 years of service and still continuing in the same post. Hence, in the light of above findings and discussion, it is high time for administrators and policy makers to create more promotional avenues to VASs which are directly linked with the level of role performance and finally enhanced national production.

Educational Qualification: There was non-significant positive association between the educational qualification and the role performance of VASs. Higher in education might have provided good opportunity to gain knowledge and performed better which might be the reason for positive impact on performance. But, it is not significant, may be due to the fact that the officers are all having more or less same level of education. Also the performance of an individual depends not only on the level of formal education but also on the factors like practical orientation, integration of knowledge and skills etc. This study is supported by the findings of Mishra et al. (2011) who reported there was no significant association between the educational qualification and the job performance of men and women extension officers.

Span of control :It was also found that a non-significant positive relationship existed between job performance of extension officers and span of control. This might be due to the fact that performance of an individual depends not only on the number of subordinates but also their experience, knowledge, skills and other facilities available as well. This result was contradicting the results of Sasidhar *et al*. (2008) which reported that role performance was negatively and significantly related with span of control ($P<0.05$).

Job Satisfaction : Job satisfaction of VASs exhibited a positive and significant relationship with their self rated role performance in the present investigation. This implies that VASs tended to be better performers of their job, if they are satisfied with their job. This finding was in concurrence with the findings of Reddy and Reddy (1995), Halakatti and Sundaraswamy (1996), Manjunath and Shashidahra (2011) and Mishra *et al.* (2011). However, this finding is in contradiction with that of Saharia (1990) who reported that job satisfaction

was negative and highly significantly correlated with role performance.

Training Received: The results indicated that training and role performance were significantly and positively associated with each other. This positive and significant relationship of trainings with role performance of VASs could be attributed to the fact, that present training setup adequately matched to the changing needs of their clientele. Therefore, it may give ample opportunity to the VASs in using the advanced techniques learned during trainings thus improving the performance. This finding gets support from the studies of Kherde and Sahay, (1981) and Singh (1982). Whereas, Sunadaraswamy and Perumal (1992) and Sandika *et al.* (2007) reported non- significant association between in-service training and job performance, while working on Assistant Agriculture Officers (AAOs) and Veterinary Livestock Inspectors (VLIs). However, Mishra *et al.* (2011) observed that non- significant and negative association with training and job performance of men and women extension officers.

Work Motivation: The observation that work motivation had positive and significant association with role performance indicated that highly motivated VASs tended to rate themselves as better performers. The possible explanation could be that majority of the respondents were in young age category and they were new recruits with strong motivation towards work. In the process, they tried to excel over others and thus, rated themselves as better performers than VASs who had low level of motivation. The report of Sunderam, 1981, Sreenivasulu and Jayaramaiah 1988, Reddy and Reddy (1995), Reddy *et al.* (1995), Halakatti and Sundaraswamy (1996), Veeraswamy *et al.* (1999) and Manjunath and Shashidahra (2011) supports the present finding and reported that motivation has a positive relationship with role performance. Studies reiterate over and over that low morale and lack of motivation have a significant negative impact on productivity. In a study of VASs Saharia (1990) found that achievement motivation was the most important motivational dimension under motivational work preference.

Participativeness: Participativeness was positively related to role performance and it reached to significant level. This may be due to the fact that, when the management encourages the employees to take part in major strategic plans and encourages them to actively involved in formulating strategies and policies for the organization, the employee draws a great pleasure and feels a sense of great achievement and contributes his best, rather than he unconsciously delivers his best and he is closely associated with the goals and objectives of the organization which is the key to motivation. As such, the concept of proper participation in the decision making process go a long way in the better performance. This result gained partial support from the findings of Rao and Sohal (1985), who reported a slight positive and non-significant relationship between participation and job performance of Veterinary Surgeons.

Technical Knowledge: Results of the present study also showed that technical knowledge and role performance were significantly and positively related at the 1.00 per cent level of significance. With expanding frontiers of science and technology, wonderful opportunities are being created in all walks of life. Technology has created the opportunity to provide, promote and access, that was not realistic before. Indeed, there is no need to prove the relationship between knowledge and performance as it is self evident that the quality of human resource is a critical influence on the performance of the organization. The findings of Maity *et al* (2007) also fit well in this line who reported that technical knowledge had positive and significant relationship with over all self -rated role performance of LDAs.

Work involvement: There was a positive and significant relation between work involvement and role performance of VASs. A feeling of serious concern of one's job induces the individual to realize that it is his responsibility to do the job and not an obligation (Manjunath and Shashidahra, 2011). This realization of one's responsibility in the job allows the individual to take things in the right sense establishing a relationship between work involvement and role performance. This finding is in agreement with the literature Halakatti and Sundaraswamy (1996) and Manjunath and Shashidahra (2011). However, Mishra *et al.* (2011) revealed that work involvement and job performance had no significant association among men and women extension officers.

Persistence Disposition: Motivational phenomenon which drives a person to continue in the chosen course of activity until it is completed is very much true with VASs work, as many of the activities are basically achievement oriented. This might have resulted in a significant and positive relationship of persistence disposition with role performance. The results reported by Reddy *et al.* (1995) gave partial support to the present findings. They reported that persistence disposition was positively and non-significantly related to job performance of agricultural extension officers.

Attitude towards Organization: The psychological feeling of the individual towards his organization is most important to maintain the interests of that organization. Such identification makes an individual to feel proud of his organization and give his best to the organization in order to enhance its reputation in the eyes of public (Manjunath and Shashidahra, 2011). The VASs working in the AHD are no exception to this fact. Hence, a significant positive relationship between VASs' attitude towards organization and their performance is observed. This implies that the VASs who perceive their

organization as favourable and emotionally attaches themselves to the ideas of the organization as a service to the community, do better on the job.

Organizational job stress: The study has depicted significant negative relationship between organizational job stress and role performance. This implies that lesser the organizational job stress experienced; higher was the performance. In other words, as stress increases, performance decreases. This seems logically valid as stress might be due to certain organizational as well as job factors. Further, the VASs have failed to cope effectively with excessive demands and expectations of their clientele; consequently they might have encountered difficulties in meeting the demands of their job. These might be probable reasons for the negative significant relationship of organizational job stresses with role performance of VASs. Similar findings were reported by Halakatti and Sundaraswamy (1996), Mishra *et al*. (2011) and Manjunath and Shashidahra (2011).

Self -esteem: There was a positive and significant relationship between self -esteem and role performance of the VASs in the present study. Higher self-esteem individuals feel secure, capable, acceptable, and worthy and the trait is relatively stable across situations. Persons with low self- esteem view themselves in negative terms and suffer self-doubts (Olugbenga *et al.* (2008). This reveals that lesser the sense of self-esteem a VAS was possessing, higher was the feeling of role performance or in other words, more was the VAS's self-esteem, high was his role performance as well. The reason one can attribute for this may be the self -concept of VASs as a veterinary doctor which provoked VAS to acquire a high sense of self confidence in performing the role as veterinary doctor. In addition, VASs with high self esteem seek more name and fame in their area of work. Whatever task is assigned to them they do with perfection which improves their job performance and satisfaction.

Availability and timeliness of availability of facilities: With respect to the physical facilities, it was evident that both the variables, availability of physical facilities and timeliness of availability of facilities was significantly associated with role performance of VASs. Regarding performance of VASs, critical issue here may be the lack of simple diagnostic kits, which severely hampered the use of veterinary skills, affected their role performance. Some of the VASs opined that the quality of services that they provide is only marginally better than that of Gopalamitras. So, it is quite natural that VAS with adequate infrastructural facilities, supply of medicines and drugs can satisfy their clients which may lead to satisfactory performance. The findings are in agreement with the studies of earlier researchers, Harahap (1987) and Singh (1982). However, Rao and Sohal (1985) reported negative relationship between job performance of veterinary surgeons and

Table 3: Multiple regression analysis of the independent variables with role performance of VASs

Variable No.	Variable	Role Performance(Y)		
		'b' value	SE	't' value
	Intercept	46.384	9.902	4.684**
X1	Age	0.004	0.084	0.052
X2	Education	-0.090	0.491	0.184
X3	Service experience	0.004	0.011	0.380
X4	Span of control	-0.165	0.107	-1.533
X5	Trainings undergone	0.274	0.268	1.021
X6	Work motivation	1.295	0.222	4.242**
X7	Technical knowledge	-0.109	0.213	0.510
X8	Work involvement	0.329	0.161	2.049*
X9	Persistence disposition	0.793	0.195	4.072**
X10	Self-esteem	0.252	0.132	1.905
X11	Physical facilities availability and utilization	2.22884	0.339	6.570**
X12	Timeliness of availability of facilities	0.58213	0.159	3.639**
X13	Attitude towards organization	0.04189	0.063	0.663
X14	Participativeness	2.22884	0.164	1.369
X15	Job satisfaction	0.08818	0.044	2.009*
X16	Organizational job stress	-0.26625	0.087	-3.046**
		R^2 = 88.19	F=7.46	

SE (Standard Error) b value (regression co- efficient)

Table 4: Multiple Regression analysis (best model using step-wise selection) of the independent variables with role performance

Variable No.	Variable	Role Performance (Y)		
		'b' value	SE	't' value
	Intercept	45.949	9.180	5.00**
X6	Work motivation	1.380	0.208	6.63**
X8	Work Involvement	0.305	0.155	1.96*
X9	Persistence disposition	0.850	0.188	4.53**
X10	Self -esteem	0.214	0.127	1.68
X11	Physical facilities availability	2.267	0.033	6.80**
X12	Timeliness of availability of facilities	0.589	0.157	3.76**
X15	Job satisfaction	0.109	0.042	2.58*
X16	Job stress	-1.116	0.086	-2.59**
		R^2 = 87.79		

** Significant at 0.01 level of probability * Significant at 0.05 level of probability
SE (Standard Error) b value (regression co- efficient)

$Y = 45.949+1.380X_6 + 0.305X_8 + 0.850X_9 +0.214X_{10} +2.267X_{11} + 0.589X_{12} + 0.109X_{15} - 1.116X_{16}$

availability of resources.

In reviewing the data derived from the correlation analysis, it can be seen that education level and service experience were the least related and work motivation and availability of physical facilities were the most related variables to role performance of VASs.

Predicting the contribution of Independent Variables to Role performance of VASs However, simple correlation merely portrays coexistence between two variables and did not capture the interaction and intensity of relationship of each independent variable with the dependent variable. Therefore, the data were subjected to multiple regression analysis step wise, for the prediction of independent variables that contribute for role performance and results were presented in Table 3 and 4. The R2 value with the sixteen independent variables turned out to be 88.19% with F valve 7.46 (Table 03) which has found to be highly significant ($p<0.01$)). In step down analysis eight variables namely, age of the respondents, education level, participativeness, training received, technical knowledge, service experience, span of control and attitude towards organization were dropped up to eighth step. Results in the Table 4 revealed that work motivation, persistence disposition, self-esteem, physical facilities availability and timeliness of availability of facilities were positively significant at 0.01% level while, job satisfaction and work involvement was significant at 0.05% level. The only variable which was found to have significant negative influence on role performance was organizational job stress. From the relational analysis (Table 2), it could be observed that though many variables were found to have significant correlation, only the above eight variables having high F values were involved in step down analysis. In fact, exclusion of eight variables in the step down analysis caused a negligible change in the expression of total variation which was reduced from 88.19 per cent (Table 3) in the initial regression to 87.79 per cent (Table 4) in the final step of the regression. The variance ratio for R2 was found to be significant ($P<0.01$). The model with all these eight variables was a good fit with R- square of 87.79%.

Looking more deeply at the variance, it is abundantly clear that providing matching physical and other facilities lead to increase role performance. Consistent with other results of this study, the effect of this variable was significant. Importance of physical facilities to make the field functionaries efficient and effective is well-documented as a predictor of human resource utilization and organizational productivity.

Organizational job stress emerged as an important determinant of VASs role performance. Not surprisingly, it's influence in negative direction, reached to significant at the 0.01 % level. The high negative coefficient for organizational job stress may be reflection a need to better understand the relationship between job stress and role performance of VASs. Effect of the variables work motivation, persistence disposition and timeliness of availability were positive and significant as well. The results of this study revealed that work motivation was a positive and significant determinant of role performance. Majority of the respondents were in young age category and they were new recruiters with strong motivation towards work. In the process, they tried to excel over others and thus rated themselves as better performers than VASs who had low level of motivation. The report of Sunderam (1981) and Sreenivasulu and Jayaramaiah (1988) support the present finding.

Persistence disposition of VASs was also observed to be a positive predictor of role performance. This finding is in tune with Sasidhar *et al.* (2008) where he reported that VASs as an extension officer at times have to put untiring efforts to introduce an animal husbandry practice or innovation into social system. Similarly they have to persuade farmers for fodder development and treat certain chronic ailments of the animals, which need considerable patience, which, social psychologists termed as persistence disposition. The work involvement and job satisfaction had a small but significant contribution to role performance. Respondents agreed that high degree of work involvement is a must for VASs as most of the time he/she is expected to work unsupervised and away from the office comforts. This finding is in consonance with the findings of Mishra et al. (2011) who reported that job involvement and job stress were major factors affecting the job satisfaction of extension officers of Karnataka State Department of Agriculture. However, self esteem did influence modestly but failed to demonstrate its significance even at 5% level.

Based on the above correlation and regression analysis it can be concluded that, out of 16 independent variables, work motivation and availability of physical facilities were the most related and the highest. The above regressions do not prove causality; they suggest areas to look deeper and more broadly with correlations.

Conclusions

The organizational productivity is the resultant outcome of employees' performance being influenced by socio-personnel, psychological and organizational factors. All these factors are believed to have direct or indirect influence over role performance of the individual and ultimately realization of organizational goals. It was found from correlation and stepwise multiple regressions that work motivation and availability of physical facilities were the most related factors of role performance of VASs. The facilities provided by SDAH were inadequate and irregular, therefore, necessity to take up appropriate measures to improve facilities and resources for VASs. It is proposed that administrators need to pay more attention on elements of human resource management strategy especially in terms of awards, rewards and appreciation of their hard work, the government may revise their policy to promote them at regular intervals. In a phased manner, it is desirable to improve infrastructural facilities and resources of VASs to efficient livestock service delivery to the needy farmers. Therefore, apart from confirming a theoretical proposition, the findings of this study are likely to have significant implications for improvement of employee performance not only in livestock organizations, but also in other development organizations as well.

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References

Ghosh, S. and Vijayaragavan, K. (2003). Performance appraisal climate of organizations: An influencing factor for overall job satisfaction of extension personnel. *The Journal of Agricultural Education and Extension*, **9** (1): 1-9.

Gogoi, M. and Talukdar, R.K. (1998). Measuring research and extension productivity of scientists of a regional agricultural research station and agricultural training centre. *Journal of the Agricultural Science Society of North east. India*. **11**(1):5-117.

Halakatti, S. V. and Sundaraswamy, B. (1996). Job performance and job attitude of agricultural assistants and related factors, *Mysore Journal of Agricultural Sciences*, **30**(4):404-410.

Harahap, S. (1987). Case study on job performance and implication for staff development for Penmas Penliks (community education fieldworkers) in Northern Sumatra, Indonesia. *Journal of Humanities-and-Social-Sciences*. **48**(2):285.

Kherde, R.L. and Sahay, B.N. (1981). Role performance and role prediction. National publishing house. New Delhi.

Maity, M., Malik, B. S., Mandal, M. K., Gautam and Choudhary, A. R. (2007). Determinants of job satisfaction among livestock development assistants of West Bengal, India. *Livestock Research for Rural Development* **19**(6).

Manjunath, L. and Shashidahra. K. K. (2011). Determinants of Scientific Productivity of Agricultural Scientists. *Indian Res. J. Ext. Edu*, **11**(1):7-12.

Mishra, D., Chandargi, D. M., and Hirevenkanagoudar, L.V. (2011). A Study on profile characteristics of men and women extension officers and their job performance and Job Satisfaction, *Karnataka J. Agric. Sci*, **24**(3):336-339.

Olugbenga, J. L., Olalekan, J.O. and Comfort, O. A. (2008). Extension Personnel's Self-Esteem and Workplace Relationships: Implications for Job Satisfaction and Affective Organizational Commitment Foci. *The Journal of Agricultural Education and Extension*, **14**(3):249-263.

Rao, S. V. N. and Sohal, T. S. (1985). Improving the performance of Veterinary Surgeons. *Maharastra Journal of Extension Education*, **4**: 19-26.

Rao, S.V.N. (1982). Correlates of job performance of veterinary surgeons in ICDP s of Karnal and Gurugan (Haryana). NDRI, Karnal.

Reddy, S. J. and Reddy, S.V. (1995). Role expectation and role performance of farm leaders in progressive and less progressive villages of Andhra Pradesh. *Journal of Research.-APAU*. **23**(2):36-40.

Reddy, M.R., Singh, Y.P. and Rao, B.S. (1995). Relationship between personal socio-psychological characteristics of agricultural assistants and their role expectation and role performance. *Journal of Research APAU*, **23**(3/4):28-30.

Saharia, K.K. (1990). A study on the Organizational Climate and Role performance as perceived by veterinarians for dairy development in Assam. National Dairy Research Institute, Karnal.

Sandika, A. L., Angadi J. G., Hirevenkanagouda, L. V. and Basavaraj, H. (2007). A study on organizational climate perception by veterinary officers and veterinary livestock inspectors of the department of animal husbandry and veterinary service, Karnataka. *The Journal of Agricultural Sciences*, **I3**(2).

Sasidhar, P.V.K., Rao, B.S. and Sreeramulu, P. (2008). Factors of role conflict among livestock extension professionals in Andhra Pradesh, India. *The Journal of Agricultural Education and Extension*. **14**(4):319-327.

Siddaramaiah, S.S. and Gowda, N.S.S. (1987). Job perception, job performance and job satisfaction of extension guides in the university extension

system of Karnataka. *Indian Journal of Extension Education*. **23**(1&2):48-50.

Singh, R.N. (1978). Sex Difference in certain motivational dimensions ISPT. *Journal of Research*. **2**(1):36-40.

Singh, S. (1982). A study of Educational suitability and level of job performance of dairy plant personnel, NDRI, Karnal.

Sreenivasulu, V. and Jayaramaiah, B. K. (1988). Job effectiveness of village extension officers. *Indian Journal of Extension Education*, **24**(3 & 4): 34-38.

Sunderam, R.S. (1981). A study of academic achievement in relation to motivation and self concept. *Journal of Educational Research and Extension*. **18**(2):40-48.

Sunadaraswamy, B. and Perumal, G. (1992). Variables influencing the job performance of assistant agricultural officers. *Karnataka Journal of Agricultural Sciences*. **5**(3): 249-254.

Thomas, J. C.(2008). Administrative, Faculty, and Staff Perceptions of Organizational Climate and Commitment in Christian Higher Education. Organizational Perceptions of Climate and Commitment Online Publication Date: 01 July 2008.

Veeraswamy, S., Satapathy, C., Appa Rao, G. and Venkatesan, T. (1999). Motivational climate and Job Satisfaction of Farm Scientists. *Indian J. of Extn. Edu*, **35**:193-199.