



Original Research

Influence of Demographic and Socio-economic Factors of Veterinary Science Graduates on Perception of Employment Skills

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Rec. Date:	Apr 19, 2018 05:05
Accept Date:	Jul 22, 2018 17:08
DOI	10.5455/ijlr.20180419050536

Abstract

The study was undertaken to assess the various factors affecting the perception of importance of personal qualities and importance of skills. The study was conducted among 50 students of under graduate and post graduate students of Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University. To understand the relationships between level of perception of personal qualities and skills and demographic socio-economic background of respondents, multiple linear regression analysis was fitted. The results indicated that, 72.60 per cent of variations in the perception of importance of personal qualities and 63.60 per cent of variations in the perception of importance of skill qualities were explained by the chosen independent variables. Further, graduates who had their schooling under state board education system perceive the importance of both personal quality attributes and skill attributes positively whereas graduates who had their schooling in CBSE system of education perceive only the importance of skill attributes and not the personal quality attributes.

Key words: Employability Skill, Generic Skill and Veterinary Graduates

How to cite: Jayavarathan, B., Prabu, M., Shilpashree, J. and SermaSaravanaPandian, A. (2018). Influence of Demographic and Socio-economic Factors of Veterinary Science Graduates on Perception of Employment Skills. International Journal of Livestock Research, 8(12), 134-140. doi: 10.5455/ijlr.20180419050536

Introduction

Employability skills are primarily derived from the personal qualities and skills that one individual possess (Yorke, 2006). “Employability” doesn’t merely talk about attaining jobs (Atkins, 1999). It is about a set of achievements, skills, understandings and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy. The country has enough potential to deliver the needs of the global talent market, the strong employability challenge of the graduates became the bottleneck for India’s growth



perspective including the graduates from veterinary science (Bourdieu, 1997). In order to negotiate an increasingly complex career terrain, graduates of veterinary science require sharpened skills in effectively managing their own careers and a strong assurance of their own capabilities (Jackson and Wilton, 2017). Appropriate career choice is reported to have greater attention in the world of work (Kulshrestha, 1979) and to choose any kind of career in any domain, employability skills are important. The modern society with its scientific and technological advancement, its division of labour and specialization of functions demand the fullest use of man power at all levels. Our pressing need today is to harness and broaden the ways and means of proper utilization of man power resources (Mattoo and Surga, 2007). Further, majority of the graduates preferred to work in India after completion of their graduation (Bharadwaja, 2017), but the companies here finds candidates with graduates with less employability skills. This problem can be addressed when students understand the importance of employability skills that are needed to get employment. The socio- economic and other demographic characteristics of graduates from veterinary science would certainly influence the perception of importance of personal qualities and skills. Hence, the present study was undertaken with the objective of identifying the influence of socioeconomic and demographic variables in determining the perception of employability skills.

Materials and Method

It is an exploratory study. There were 50 students participated in the survey. All the students were randomly selected and the respondents were from final year of the under graduation and post-graduation from veterinary sciences. The questionnaire was prepared based on extensive literature review and from the Employability Skill Framework of Jackson and Chapmon's (2012) and through a series of modifications by administering the questionnaire to experts. There were 20 attributes of personal qualities and 20 attributes of skills. The list of personal quality attributes used in the study were adaptability, ambitious, fit into culture, emotional intelligence, energetic, enthusiasm, hardworking, independence, initiative, integrity, loyalty, positive attitude in work, punctuality, receptiveness to training, respect for authority, responsibility, self-awareness, self-confidence, stress tolerance and willingness to learn. The list of skill attributes used in the study were sector specific skills, ability to work cross culturally, global awareness, team work, oral communication, reading effectiveness, writing skills, problem solving, conflict resolving, computer literacy, creativity, reasoning skills, critical analysis, decision making skills, ability to influence others, information retrieval, negotiating, numeracy, planning and self-management. The purpose was explained followed by discussion on their responses, which contributed towards developing the questionnaire. Against each of the attributes in personal qualities and skills, the respondents were asked to rate on a scale on 1 to 5 on the level of importance of personal qualities and skills. The survey for the study was conducted during the period of June 2014 to July 2014.

Descriptive statistics was to analyse the respondent's socio-economic and demographic background characteristics. In order to understand the relationships between level of perception of personal qualities and skills and socio-economic background characteristics of respondents, multiple linear regression analysis was fitted. The following Multiple linear regression model was postulated with level of education, community, religion, type of family, fathers education, mothers education, class 10 board of instruction, class 10 medium of instruction, class 10 marks, class 12 board of instruction, class 12 medium of instruction, class 12 marks, B.V.Sc marks, first graduate or not and family income as independent variables as mentioned in Table 1.

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \mu$$

$$Y_2 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \mu$$

Where,

Y_1 = Cumulative indicator score on level of importance of personal qualities

Y_2 = Cumulative indicator score on level of importance of skills

α = Intercept

β_i = Regression coefficients to be estimated and μ = stochastic disturbance term

Table 1: Definition of variables expected to influence the perception of importance of personal qualities and perception of importance of skills

Variable	Definition
X_1	Level of education (1 = UG, 2 = M.V.Sc, 3 = PhD)
X_2	Religion (1 = Hindu, 0 = Others)
X_3	Type of family (1 = Nuclear, 0 = Joint)
X_4	Fathers education (No. of years)
X_5	Mothers education (No. of years)
X_6	Class 10 Board of instruction (1 = CBSE, 0 = State board)
X_7	Class 10 Medium of instruction (1 = English, 0 = Tamil)
X_8	Class 10 Marks (in percentage)
X_9	Class 12 Board of instruction (1 = CBSE, 0 = State board)
X_{10}	Class 12 Medium of instruction (1 = English, 0 = Tamil)
X_{11}	Class 12 Marks (in percentage)
X_{12}	BVSc marks (in percentage)
X_{13}	First graduate in family (1 = Yes, 0 = No)
X_{14}	Family income (in Rs./annum)

Results and Discussion

Demographic Characteristic of Graduates of Veterinary Science

The result of the demographic and socio-economic characteristics of veterinary science graduates is presented in Table 2.

Table 2: Demographic characteristic of graduates of veterinary science

Characteristics	Locality	Minimum	Maximum	Mean	Std. deviation
Family size	Rural	3	7	4.32	0.82
	Semi urban	4	7	4.67	0.89
	Urban	3	5	4	0.65
	Overall	3	7	4.32	0.82
Fathers education level	Rural	0	19	11.14	6.08
	Semi urban	0	17	12.33	5.09
	Urban	0	19	11.87	7.54
	Overall	0	19	11.14	6.08
Mothers education level	Rural	0	19	8.58	6.39
	Semi urban	0	16	10	5.78
	Urban	0	19	10.33	7.02
	Overall	0	19	8.58	6.39
Class 10 marks	Rural	58	98.4	83.03	10.23
	Semi urban	65	98.4	86.3	9.38
	Urban	58	93.2	80.69	9.76
	Overall	58	98.4	82.68	10.43
Class 12 marks	Rural	65	95	83.31	8.5
	Semi urban	70	95	85.58	7.87
	Urban	69	94	82.6	8.34
	Overall	65	95	83.04	8.62
BVSc marks	Rural	60	87	72.76	6.07
	Semi urban	65	82	72.67	6.51
	Urban	60	86	73.07	6.95
	Overall	60	87	72.76	6.07
Family income	Rural	10000	1400000	260276.72	272175.16
	Semi urban	10000	600000	245917.16	208962.46
	Urban	30000	1400000	466666.67	364606.77
	Overall	10000	1400000	278660.12	274011.85

The family size lies with a mean value of 4.32. The mean value of their parent's education was found to be more or less equal in urban, semi urban and rural areas. The mean value of their parent's education was about 12 years for father and 9 years for mother. The mean value of marks scored by the veterinary science graduates in class 10, class 12 and in B.V.Sc were more or less equal in rural, semi urban and urban areas. The marks scored by the veterinary science graduates in class 10 and class 12 were in the range of 83 per cent and for B.V.Sc, the mark was in the range of 73 per cent. With regard to family income, the value was high in urban areas compared to semi urban and rural areas. The standard deviation for the variable family income of veterinary science graduates was high in urban areas indicating the income inequality among the families of urban areas.

Demographic and Socio-Economic Factors Affecting the Perception Score of Importance of Personal Qualities among Veterinary Science Graduates

The multiple linear regression technique was applied to explore the effects of the socio-economic and demographic variables on the perception of importance of personal qualities and the results were presented in Table 3.

Table 3: Demographic and Socio-economic factors affecting the personal qualities of veterinary science graduates

Characteristics	Locality	Minimum	Maximum	Mean	Std. deviation
Family size	Rural	3	7	4.32	0.82
	Semi urban	4	7	4.67	0.89
	Urban	3	5	4	0.65
	Overall	3	7	4.32	0.82
Fathers education level	Rural	0	19	11.14	6.08
	Semi urban	0	17	12.33	5.09
	Urban	0	19	11.87	7.54
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Mothers education level	Rural	0	19	8.58	6.39
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	Overall	10000	1400000	278660.12	274011.85

The adjusted co-efficient of determination (Adjusted R²) was found to be 0.726, indicating that 72.60 per cent of variations in the dependent variable is explained by the independent variables. The F value (8.297) was also found to be significant at 1 per cent level. The variables religion, class 10 medium of instruction and first graduate in family had a significant positive relationship (at 5 per cent level) with the cumulative perception score of importance of personal qualities. It indicates that people belonging to Hindu religion, English as their medium of instruction in class 10 and those who are first graduates from their family showed the higher perception on importance of personal qualities. This is because, the students of class 10 with English as medium of instruction develop a sense of self confidence over their achievements and skills, thus ensuring them to perceive the importance of personal qualities at a higher level when compared with their counter parts i.e. class 10 medium of instruction in Tamil, Telugu and Hindi languages. It is more evident that the first graduates in veterinary science degree programme have an intrinsic feeling for better achievement both in their academic and non-academic qualities. This made them to perceive the importance of personal qualities relatively at a higher level when compared with the second and third level graduates.

The variables like type of family, class 10 board of instruction and class 12 board of instruction had a significant negative relationship (at 1 per cent level) with the cumulative perception score of importance of personal qualities. The parents of the students from nuclear family may invest much in their children's education because of their financial surplus rather than the students from joint family and hence students from nuclear family, already developed personal qualities and skills perceive the importance of personal qualities negatively whereas students from joint families perceive it positively. Result also clearly reveals that the students with Central board of secondary education as their board of instruction did perceive the importance of personal qualities negatively whereas students from state board of instruction perceive the importance of personal qualities positively.

Demographic and Socio-Economic Factors Affecting the Perception Score of Importance of Skill Qualities among Veterinary Science Graduates

The multiple linear regression technique was applied to explore the effects of the socio-economic and demographic variables on the perception of importance of skills and the results are presented in Table 4.

Table 4: Demographic and Socio-economic factors affecting the perception of skills of veterinary science graduates

Independent Variables	Coefficient	t-value	Significance Level
Constant		2.041	0.051
Level of education	.316*	1.962	0.06
Religion	-0.064	-0.484	0.632
Type of Family	.413**	3.21	0.003
Fathers education	-0.034	-0.192	0.849
Mother education	0.258	1.279	0.211
Class 10 Board of instruction	-.974**	5.098	0
Class10 Medium of instruction	-0.593	-1.916	0.066
Class10 Marks	.613**	3.947	0
Class12 Board of instruction	-.450**	-3.27	0.003
Class12 Medium of instruction	-0.496	-1.528	0.138
Class 12 Marks	-0.458	-2.173	0.038
B.V.Sc marks	0.114	0.944	0.353
First graduate in family	0.034	0.219	0.829
Family income	0.004	0.031	0.975
Dependent variable	Perception score of importance of skills		
R²	0.768		
Adjusted R²	0.636		
F value	5.796**		
N	50		
*	Significant at five per cent level (0.05 < p < 0.01)		
**	Significant at one per cent level (p < 0.01)		

The adjusted co-efficient of determination (adjusted R²) was found to be 0.636, which indicated that 63.60 per cent of variations in the dependent variable were explained by the independent variables. The F value (5.796) was also found to be significant at 1 per cent level.



The variables like level of education, type of family and class 10 marks had a significant positive relationship (at 1 per cent level) with the cumulative perception score of importance of skills. This indicates that graduates educated at higher level, from nuclear family and who have scored high in class 10 have perceived the high perception on importance of skills positively. The variables like class 10 board of instruction and class 12 board on instruction had a significant negative relationship (at 1 per cent level) with the cumulative perception score of importance of skills which indicates that students from state board of instruction gives high perception score on importance of skills than Central board of secondary education students.

Conclusion

The study was carried out to assess the factors affecting the perception of importance of personal and skills, indicated that 72.60 per cent of variations in the perception of importance of personal qualities and 63.60 per cent of variations in the perception of importance of skill were explained by the chosen demographic and socio-economic factors of Veterinary Science graduates. Students with English as medium of instruction in their schooling developed a sense of self confidence over their achievements and skills thus ensured them to perceive the importance of personal qualities at a higher level when compared with the graduates who have chosen their native languages as the medium of instruction. Further, graduates who had their schooling under state board of education perceive the importance of both personal quality attributes and skill attributes positively but the graduates who had their schooling under central board of secondary education perceive the personal qualities negatively and skill quality attributes positively.

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