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## Socio economic profile of scientists of Tamil Nadu veterinary and animal sciences university

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#### Abstract

The study was conducted to assess the socio-economic status of scientists of Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) and the data was collected through structured interview schedule with a sample size of 200 scientists from various constituent colleges and units of TANUVAS. The study revealed that Assistant Professors constituted the majority among the different category of scientists working at TANUVAS. It was also observed that majority of the scientists of TANUVAS were male, belonged to young age group and possessed doctoral degrees. Majority of the scientists were hailing from rural background and were residing in rented houses. Majority of the scientists were in the medium level of income category and were in the category of low level of job experience. With regard to the trainings, majority of Associate Professors and Professors have attended atleast 1-2 International trainings but nearly 45% of Assistant Professors have not attended International trainings but had attended several national trainings. Majority of the scientists have handled one or more university subprojects or small budget external funded research projects with a budget outlay of less than 5 lakh rupees. More than half of the respondents had membership in 1-3 professional bodies and about 59% of Assistant Professors had conducted more than 20 number of extension activities in their career. Majority of the respondents exhibited low level of self-confidence. With regard to workload perception and achievement motivation, majority of the faculty perceived medium to high level of workload perception and achievement motivation during their tenure of work at the university.

Keywords: Achievement motivation, scientists, profile, TANUVAS, workload

#### Introduction

Universities serve as nerve centers for social and economic development of the country. They play a pivotal role as leaders in teaching and learning and in the generation of knowledge. The innovations developed through basic and strategic research are subsequently transferred to the end users through various institutions. The teaching and research functions of higher educational institutions have an important role to play in national development particularly in production of skilled manpower and research output to meet the perceived targets (Kaur, 2012)<sup>[6]</sup>.

Veterinary Universities are academic organizations which contribute significantly to the livestock development. They operate on the concept of integration of three main areas namely teaching, research and extension and function with multitude of specialized disciplines and departments. The Veterinary Institutes exist for the sole purpose of coordinating the available material and human resource towards the achievement of predetermined set of teaching, research and extension goals namely educating students, development of innovative and cost-effective technologies, imparting knowledge and skill to the farmers, farm women and rural youth thereby bringing about socio economic change among the end users.

#### **Materials and Methods**

The scientists/teaching faculty (Professors, Associate Professors and Assistant Professors) on roll at various constituent institutions of Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) was obtained from the University and were listed. The faculty members were selected according to their area of work (Teaching, Research and Extension) and with the criteria of having put up at least five years of work experience in the University. A total of 200 scientists out of the total population of 548 scientists employed at TANUVAS were selected as respondents for the study purpose by proportionate random sampling.

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#### **Results and Discussion**

The socio-economic profile of scientists of Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) were studied with a total of fifteen variables to understand their socio-economic profile. The distribution of the respondents under each demographic character has been presented in Table 1.

Table 1 revealed that majority (76%) of the selected respondents belonged to Assistant Professor Category followed by Professors (20%) and Associate Professors (4%). Similar findings were observed by Vijaykumar (2009) <sup>[22]</sup>. The age of the selected respondents in the Assistant Professor category ranged from below 34 to above 44 years. Majority (61%) of the Assistant Professors belonged to middle age category followed by young age (31%) and old age category (8%). All the Associate Professors and Professors belonged to old aged category. With regard to the age, Prasad (2000) <sup>[14]</sup>, Sandika *et al.*, (2007) <sup>[18]</sup>, Kiran (2007) <sup>[7]</sup> and Padmaja and Prabhakar (2011) <sup>[13]</sup> also reported similar results.

It could be observed from the Table, that majority (65%) of the Assistant Professors were male, while the remaining respondents were female (35%). In the case of Associate Professors equal number of male (50%) and female respondents were observed (50%). With regard to Professors, majority of them were male (85%), while the remaining respondents were female (15%). It is also evident that the percentages of female respondents were comparatively less than their faculty strength. Gharib *et al.* (2016) <sup>[3]</sup> also reported similar results in their universities.

Table 1 revealed that more than half of the Assistant Professors (54%) were post graduate degree holders which is a mandatory qualification for the entry level scientists at TANUVAS, while the remaining (43%) were doctoral degree holders and a meagre 3 percent of them were possessing Post Doctorate Fellowships (PDF), in addition to their doctoral degree. With regard to Associate Professors, all of them possessed doctoral degree (100%) and 12 percent of them were PDF holders. With regard to Professors, all the selected respondents possessed doctoral degree and a meagre 7 percent of them had undergone Post Doctorate Fellowships (PDF). The probable reasons for majority of the respondents possessing doctoral degrees in addition to their basic postgraduation degree could be due to their personal need to get timely promotions and monetary increments apart from improving their competency in the profession. Further, it was observed that 25 scientists possessed Post Graduate diplomas, and it was interesting to note that more number of PG diplomas was possessed by Assistant Professors, due to their felt needs namely promotion and personal growth. These findings are in conformity with the findings of Gautam et al. (2006)<sup>[2]</sup>, Sandika et al. (2007)<sup>[18]</sup>, Kiran (2007)<sup>[7]</sup>, Anbar and Eker (2008) <sup>[1]</sup>, Manjunath (2004) <sup>[8]</sup>, Singh et al. (2009) <sup>[21]</sup>, Vijaykumar (2009) <sup>[22]</sup>, Sabri et al. (2011) <sup>[17]</sup> and Kadam et al. (2014)<sup>[5]</sup>.

With regard to marital status, all the 200 respondents were married. This finding is similar to the findings of Gharib *et al.* (2016) <sup>[3]</sup>. Table 1 reveals that with regard to house occupancy, majority of the selected respondents in the category of Assistant Professors were dwelling in rented houses (61%), while the remaining were residing in their own houses (21%) and staff quarters of the University (18%). An equal number of Associate Professors were residing in their own house (50%) and rented houses (50%), while none of the selected Associate Professors were living in university staff

quarters. Highest percentage of Professors selected for the study were residing in their own houses, while 22 and 13 percent of them resided in rented houses and staff quarters in the university campus, respectively. The data clearly indicates that about one half of the faculty stayed in rented houses, and the fact might be that they may not be native to the work place or they have not yet purchased their own house. Majority of Assistant Professors prefer to stay in university staff quarters. This may be due to their preference of residing in close proximity to the work place and due to their nature and timing of work in clinical department.

It was observed from Table 1 that majority of the respondents in the category of Assistant Professors (70%) and Professors (63%) were hailing from rural background, while the remaining 30% and 37% of them were from urban background. Among Associate Professors equal numbers of scientists were from rural (50%) and urban (50%) areas.

It is evident from Table 1 that majority of the selected Assistant Professors were in the medium level of income category (79%) followed by high (16%) and low income (5%) categories. In the case of selected Associate Professors, maximum numbers of the respondents fell under high income category (50%). This was followed by medium level (38%) and low level of income categories (12%). With regard to Professors, majority of them belonged to medium level of income category (70%) followed by high (17%) and low level of income categories (13%). Faculty falling under medium level of income category (78%) was highest in TANUVAS. The reason for most the respondents under medium annual income category might be because of their medium level of work experience at TANUVAS and the UGC pay scales offered to them. The results were similar with the findings of Reddy and Maraty (2003) <sup>[16]</sup>, Micheals (2004) <sup>[9]</sup>, Kiran (2007)<sup>[7]</sup> and Kadam et al. (2014)<sup>[5]</sup>.

Table 1 revealed that majority of the selected Assistant Professors were in the low level of job experience category (73%) followed by high (22%) and medium level (5%) of job experience categories. With regard to Associate Professors, majority of them belonged to low level of job experience category (63%) followed by high (23%) and medium level categories (17%). With regard to Professors, majority of them belonged to low level of job experience category (70%) followed by medium (23%) and high level categories (7%). The data revealed that TANUVAS has more number of young faculties and the reason attributed is due to periodic recruitment of Assistant Professors over the last 10 years when compared to other universities and also due to retirement of many of the senior faculty members. The findings of Prasad (2000) [14], Reddy and Maraty (2003) [16], Manjunath (2004)<sup>[8]</sup>, Kiran (2007)<sup>[7]</sup>, Immanuel and Sabapathi (2007)<sup>[4]</sup>, Sandika *et al.* (2007)<sup>[18]</sup> and Padmaja and Prabhakar (2011)<sup>[13]</sup> were contradictory with regard to job experience.

The data in Table 1 revealed that with regard to National level training, majority of selected Assistant Professors (72%) had attended 1-3 trainings, while 25 percent had undergone 4-6 trainings and the remaining 3 percent had undergone 7-9 trainings and more. In the case of Associate Professors, nearly 50 percent of the selected respondents had undergone 7-9 trainings, while only 12 percent had undergone less than 3 trainings, while the remaining 28 percent had undergone 4-6 trainings. With regard to Professors, 55 percent had undergone 1-3 trainings while the remaining 40 percent had undergone 4-6 trainings and a meager 5 percent had

undergone 7-9 trainings. The findings are in line with the findings of Mohan (2003), Nagananda (2005) Rani and Reddy (2006) <sup>[15]</sup>, Vijaykumar (2009) <sup>[22]</sup>, Nisha and Sudeepkumar (2011), Padmaja and Prabhakar (2011) <sup>[13]</sup> and Sangamesh (2012) who had reported that the faculty had attended more number of national level trainings.

With regard to international trainings (Table 1) more than half of the Assistant Professors (55%) had undergone 1-2 trainings and remaining 45 percent had not undergone any International training in their area of expertise. With regard to Associate Professors, 86 percent had undergone International trainings remaining 14 percent had not undergone any training. In the case of Professors, 84 percent had attended International training and 16 percent had not undergone any training. This revealed that the among the respondents, Assistant Professors had very limited exposure to International training and there is scope for attending more International trainings under various ICAR projects to enrich their knowledge in their area of expertise.

Table 1 revealed that, with regard to Assistant Professors, 56 percent of selected respondents have handled one or more university sub-projects or small budget external funded research projects with a budget outlay of less than 5 lakh rupees, while 36 percent had projects in the range of 5-10 lakhs and 8 percent had projects with a budget outlay of more than 10 lakhs. With regard to Associate Professors, 50 percent of selected respondents had small projects less than 5 lakhs, while 37 percent of respondents had projects in the range of 5-10 lakhs and the remaining 13 percent had mega projects with a budget outlay of more than 5 lakhs, while 37 percent of selected respondents had projects in the range of 5-10 lakhs and the remaining 13 percent had mega projects with a budget outlay of more than 10 lakhs. With regard to Professors, 64 percent of selected respondents had projects less than 5 lakhs, while 25 percent of respondents had projects in the range of 5-10 lakhs and the remaining 11 percent had projects with a budget outlay of more than 10 lakhs.

It could be observed from Table 1 that more than half (52%) of the Assistant Professors had life/annual membership in 1-3 while 44 percent had professional bodies/societies, membership in 4-7 bodies/societies and the remaining 4 percent had membership in 8-11 societies. Majority of the Associate Professors (50%) had membership in 4-7 societies, while 25 percent each of the remaining had membership in both 1-3 number of societies and 8-11 societies. With regard to Professors category (65 percent) had membership in 8-11 societies, while 25 percent had membership in 4-7 societies and the remaining 10 percent of membership in 1-3 societies. The membership status in Professional bodies/ Societies both at National and International level contribute significantly to the enhancement of knowledge and research.

It could be observed from Table 1 that majority of the Assistant Professors (48%) had conducted more than 40 number of extension activities like awareness programes, mass contact programes, field tours, exhibition etc., under various categories, while the remaining 41 percent and 11 percent had conducted less than 20 and 20-40 extension activities, respectively. With regard to Associate Professors,

25 percent each had conducted less than 20 and up to 40 number of extension activities, while the remaining (50%) had conducted more than 40 number of extension activities. In the case of Professors majority (47%) had conducted more than 40 number of extension activities while the remaining 35 and 18 percent had conducted less than 20 and up to 40 number of extension activities, respectively. The data revealed that the newly recruited Assistant Professors of TANUVAS were posted in Outreach centres namely VUTRCs, FTCs and KVKs during the initial phase of their career and they get the opportunity to carry out more extension activities. Once they get elevated they got posted in colleges and research stations and the opportunity to perform Extension activities becomes very limited.

Table 1 reveals that with regard to work load among the scientist, 34 percent of Assistant Professor, 61% of Associate Professors and 59% of Professor perceived medium level of work load perception in the university, while 37% of Associate Professors and 9% & 10% of Professors and Assistant Professors respectively perceived high workload. The findings were in line with the findings of Vijaykumar (2009) <sup>[22]</sup>. This might be due to the fact that faculty strength is insufficient in commensurate to the workload and they are engaged in several activities simultaneously like teaching, research, extension, administration and clinical activities. The findings were in accordance with the findings of Reddy and Maraty (2003) <sup>[16]</sup> Sandika *et al.* (2007) <sup>[18]</sup> and Selviya and Reddy (2008) <sup>[20]</sup>.

Table 1 depicts that nearly half of the Assistant Professors (45%) exhibited low and medium (44%) levels of selfconfidence followed by 11 percent of them possessing high level of self-confidence. With regard to Associate Professors, majority (63%) of the selected respondents were having low level of self-confidence and the remaining 37 percent were having medium to high level of self-confidence. In the case of Professors, majority (90%) exhibited low level of selfconfidence while the remaining 10 percent had medium to high level of self-confidence. The results reveal that those young Assistant Professors during their initial career phase in the University exhibited medium to higher level of selfconfidence, but after a gap of 10 years, it slowly declined and low to medium level of self-confidence was observed and this might be due to negative feelings, poor relationship with peer group, low resilience and hardships. The findings were contradictory to the finding of Vijaykumar (2009)<sup>[22]</sup>.

Table 1 revealed that majority of the selected respondents from both Assistant Professor (63%) and Professor (60%) categories had medium level of Achievement Motivation, followed by high and low level of achievement motivation in both the groups. In case of Associate Professors, majority (63%) of them belonged to low level of achievement motivation followed by high (25%) and medium levels (12%). The results were in accordance with the findings of Kiran (2007)<sup>[7]</sup>.

Table 1: Profile of Scientists of Tamil Nadu Veterinary and Animal Sciences University N=200

SI. No	Categories	Assistant Professor	Associate Professors	Professors
1	Designation	152(76)	8(4)	40(20)
2	Age			
	Young (Up to 33 years)	47(31)	0	0
	Medium (35 to 44 years)	92(61)	0	0
	High (Above 44 years)	13(8)	8(100)	40(100)
3	Gender			

	Male	99(65)	4(50)	34(85)
	Female	53(35)	4(50)	6(15)
	Education			
4	Post graduate	83(54)	-	-
	Doctoral degree	65(43)	8(100)	40(100)
	Marital status			
5	Married	152(76)	8(100)	40(100)
F	Unmarried	0	0	0
	Place of residence			
<u>ر</u>	University campus	27(18)	0	3(13)
0	Own house	32(21)	4(50)	13(65)
	Rented house	93(61)	4(50)	4(22)
	Family background			
7	Rural	106(70)	4(50)	25(63)
	Urban	46(30)	4(50)	15(37)
	Annual income			
Q	Low	8(5)	1(12)	5(13)
0	Medium	120(79)	3(38)	28(70)
	High	24(16)	4(50)	7(17)
	Job experience			
9	Low	111(73)	5(60)	28(70)
· _	Medium	8(5)	2(23)	9(23)
	High	33(22)	1(17)	3(7)
	Training underwent (National)			
10	Low (1-3)	109(72)	1(12)	22(55)
10	Medium (4-6)	38(25)	3(38)	8(40)
	High(7-9)	5(3)	4(50)	10(5)
	Training underwent (International)			
11	1-2	84(55)	7(86)	34(84)
	Nil	68(45)	1(14)	6(16)
Ļ	Projects handled	05(54)	1/50×	0
12	Less than 5 lakh	85(56)	4(50)	26(64)
F	5-10 lakh	55(36)	3(37)	10(25)
	More than 10 lakh	12(8)	1(13)	4(11)
F	Niembership status in professional bodies	70(52)	2(25)	4(10)
13	(1-5  societies)	(19(52)	2(23)	4(10)
	(4-/ societies)	0/(44) 6(4)	4(50)	10(25)
	(ð-11 SOCIETIES)	0(4)	2(23)	20(03)
F	L age then 20	67(41)	A( <b>5</b> 0)	14(25)
14 -		02(41)	4(30)	7(18)
F	20-40 More then 40	72(49)	2(25)	10(47)
	Workload percention	/ 3(40)	2(23)	17(47)
F	Low (1-2)	<i>A</i> ( <b>3</b> )	0	2(5)
15	Medium (3-4)	135(80)	5(63)	34(85)
┝	High (5)	13(8)	3(37)	4(10)
	Self-confidence	13(0)	5(57)	T(10)
⊢	Low (14-18)	68(45)	5(63)	36(90)
16	Medium (19-23)	67(44)	2(25)	2(5)
F	High (24-28)	17(11)	1(12)	2(5)
	Achievement motivation	• ( ( • • )	1(12)	2(3)
	Low (16-22)	14(9)	5(63)	5(13)
17	Medium (23-29)	96(63)	1(12)	24(60)
F	High (30-36)	42(28)	2(25)	11(27)
			/	

Figures in parantheses indicate percentages.

#### Conclusion

Majority of the respondents were Assistant Professors belonging to male gender, middle aged, had doctoral degrees and were married with medium level of income and were hailing from rural background With regard to the house occupancy, majority of the faculty were residing in rented houses while the remaining 31 and 16 percent were residing in their own houses and staff quarters. Majority of the scientists were in the category of low level of job experience. With regard to trainings, majority of Associate Professor and Professors have attended 1-2 number of International trainings apart from National trainings but in the case of Assistant Professors 45% have not attended even 1-2 International trainings.

Majority of the scientists have handled one or more university sub-projects or small budget external funded research projects with a budget outlay of less than 5 lakh rupees. More than half of the respondents had membership in 1-3 professional bodies/societies and it was interesting to note that more than 48% of Assistant Professors had conducted more than 20 number of extension activities in their career. Majority of the respondents exhibited low level of self-confidence. With regard to workload perception and achievement motivation, majority of the faculty perceived medium to high level of workload perception and achievement motivation during their tenure of work. The study revealed that the faculty of TANUVAS especially Assistant Professors had to be deputed to attend more International trainings at leading Veterinary Institutions to keep abreast of the latest knowledge in their area of expertise. It was observed that only 10 percent of scientists have projects with a budget outlay of above five lakhs sanctioned by External funding agencies like Department of Bio-technology (DBT), Department of Science & Technology (DST), National Agriculture Development Programme (NADP), Tamil Nadu Innovation Initiatives (TANII) etc., and hence the scientists of TANUVAS need to be motivated to moot out multi-disciplinary winning project proposals.

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