SOCIO-PERSONAL CHARACTERISTICS OF PRIVATE VETERINARY PRACTITIONERS (PVPS) IN DEVELOPING COUNTRIES: A STUDY IN WEST BENGAL STATE OF INDIA

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Introduction

Veterinary services have been traditionally funded, managed and delivered by the public sector in developing countries. This public sector monopoly first came under a threat in the 1980s when many started questioning the desirability of the situation on economic and efficiency grounds in Africa as it became clear that the government agencies were unable to provide quality livestock health services (Anteneh 1984; de Haan and Nissen 1985). Throughout the world, especially in developing countries, the livestock population has increased enormously, while the government budgets have not kept pace and the veterinary services have suffered with the main issue being inter alia lack of funds and hence of a broad effective service (Carney 1998). Thus, the emphasis in recent years has been shifted over to decentralization, cost recovery, withdrawal from selected services and contracting, encouraging private veterinary practitioners (PVPs) for privatizing veterinary services.

In developed countries, it has long been the case that the veterinary services are provided on a private, consumer-pays-basis (Carney 1998). Developing nations of Africa too have attempted to privatize veterinary services, but the results are mixed (Angniman 1996, Cheneau 1998, de Haan and Bekure 1991, Gros 1994, Ilemobade 1996, Leonard 1993, Leonard et al 1999, Turkson and Brownie 1998, Umali et al 1994).

Most African countries have privatized their veterinary services with the main objective of enhancing productivity and efficiency of the livestock sector and to benefit animal agriculture, the producer, the state and the veterinarians

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(Mpelumbe 1994). Privatization has made significant progress there either by careful planning (Morocco) or by default. Drug availability and use per animal is significantly higher in countries that have privatized veterinary services and drug supplies (eg: in Cameroon, Central African Republic, Côte d' Ivoire, Ghana, Mali, Senegal and Kenya) compared to those retaining government monopolies (Benin, Burkina Faso, Chad, Mauritania, Niger and Rwanda), as studied by Daniels and Skerman (1993) and Holden (1999). Also, tsetse fly control in Zimbabwe and Botswana and delivery of vaccination in Morocco have shown significant improvement after privatization. The costs of provision of these services have also been reported to be significantly lower (Holden 1999).

The results of privatization in sub-Saharan Africa are encouraging so far, particularly in case of cost recovery and drug distribution (de Haan and Bekure 1991). But reports are also there that in absence of proper implementation, privatization has resulted in private practitioners mainly concentrating in urban and periurban areas with rural areas left unattended (Mpelumbe 1994, Thome et al 1995). According to Holden and Chema (1996), there is relatively little evidence to suggest that privatization has improved the delivery of veterinary services in developing countries.

In Asia, experiences with the Animal Husbandry Development Network (AHDN) of Indonesia also indicate that the scope for private service delivery is promising (Kartamulia et al 1995). For privatization of veterinary services in Indonesia, projects with the goal of client-focused approaches to the planning and delivery of livestock services to the small scale and resource poor farmers and to judge the possible viability of private system, are being implemented.

In Latin America too, countries like Argentina have already an existing private veterinary service sector. For example, in 1995, out of 19,638 veterinary graduates, only 6% (1,187) were employed in the public sector and the majority went to private practice (Nader 1996). Also from Mexico, Trujillo (1996) reported that the government policies have caused a radical transformation in the labour market for veterinary graduates registering an important trend towards private initiatives (private companies and private practice), thus displacing the public sector into second place. The proportion of vets in Mexico working in the public sector has fallen from 85% in the 1970s to 30% in 1995

(Trujillo 1996). So, the whole world is moving progressively towards privatizing animal health and breeding services delivery.

India, like other developing countries, is also facing fiscal deficits and is currently undergoing macro-economic structural adjustments. In the livestock sector, the veterinary services consume about 60 to 80% of the budget allocated to the livestock support services (Prabaharan 2000). The concerns being raised about the efficiency and effectiveness of the public sector veterinary services, and also the diverse demands placed by the animal owners, have led to the search for an alternative mechanism of providing these services.

The steering committee constituted by the Government of India in 1996 remarked that the free veterinary and AI services have resulted in an infrastructure that is vast and expensive which is extremely difficult to sustain (GOI 1996). In spite of the vast and extensive infrastructure, India has 0.10 veterinary institutions/1000 livestock, 0.15 AI centres/1000 bovines and 0.42 AI centres/ 1000 breedable bovines resulting in vast portions of the country lying uncovered by livestock health and breeding services (Table 1).

Privatisation of veterinary services, as one strategy of providing efficient and effective service, is finding acceptance in most of the developing countries. The World Bank portfolio, in recent years, is also concentrating on the privatisation of typical private sector activities that are being presently executed by the government (Schillhorn van Veen 1999). However, private entry into the veterinary sector will depend upon the availability and sustainability of an economically profitable practice. So, in the context of the delivery of private veterinary services, PVPs assume paramount importance, as they are the role model to follow for the future practitioners.

The World Bank estimates reported that in 1993, India had 900 PVPs (Schillhorn van Veen and de Haan 1995). As per FAO/OIE estimates, in 1996 there were1055 PVPs in India and there had been 200% increase in the number of PVPs in India from 1985 to 1993 (Verma 2000). OIE (2001) reported that in 2000, there were 1800 PVPs in India. Given the consumer's willingness to pay for such services,

Table 1. Livestock population, veterinary institutions and AI centres in India (1996)

State	Livestock (1992) Population ('000)	Density (000/km2)	Veterinary Institutions/ 1000 bovines	AI Centres/ 1000 livestock	AI Centres/1000 breedable bovines
Andhra Pradesh	32911	120	0.14	0.18	0.48
Assam	16065	205	0.11	0.07	0.22
Bihar	47934	276	0.07	0.06	0.21
Gujarat	18597	95	0.09	0.31	0.72
Haryana	9144	207	0.24	0.35	0.78
Himachal Pradesh	5116	92	0.23	0.31	0.75
Jammu & Kashmir	8706	39	0.09	0.15	0.38
Karnataka	29570	154	0.10	0.34	0.96
Kerala	5838	150	0.19	0.49	1.03
Madhya Pradesh	46742	105	0.07	0.08	0.24
Maharashtra	36392	118	0.09	0.18	0.45
Orissa	22751	146	0.15	0.11	0.35
Punjab	9454	188	0.26	0.26	0.53
Rajasthan	48413	141	0.05	0.11	0.24
Tamil Nadu	25005	192	0.12	0.29	0.72
Tripura	1593	152	0.27	0.14	0.43
Uttar Pradesh	64799	222	0.08	0.06	0.16
West Bengal	36090	407	0.04	0.16	0.49
All India	470145	143	0.10	0.15	0.42

Source : GOI 1992 Basic Animal Husbandry Statistics. DAHD, MCA, New Delhi, GOI

as estimated by some researchers, this increase is not surprising at all. Ahuja et al (2000) and Sulaiman and Sadamate (2000) have studied the willingness of the farmers in India to pay for veterinary as well as agricultural extension services. They concluded that privatisation is inevitable so as to provide veterinary services to the farmers efficiently as well as effectively.

As such, in the event of privatisation of veterinary services, considerable portions of the graduates of the veterinary sciences have to inevitably venture into the field of private practice. With this situation in mind, this study was undertaken to study, among others, the profile of

the private veterinary practitioners (PVPs), as the self-employed practitioners of today will serve as a model and/or source of training for the future practitioners.

Materials and Methods

The study was conducted in two purposively selected districts of West Bengal state in India viz. Kolkata (a metropolitan area) and South 24-Parganas (a predominantly rural area).

Locale of the study

The State: West Bengal

In the state, 70% of the population is engaged in agriculture and contributes over 30% of the income of the state. Livestock sector contributes Rs. 11,042 crores to the state in terms of milk, meat, egg, wool, manure, fertilizer, bio-gas, hides, skin and other by-products (Anonymous 1996). The livestock population of the state and other information on the state are presented in Table 2.

Regarding the veterinary sector of the state, the veterinary health services cover in West Bengal is lowest in India though the AI coverage is at par with the national coverage (Table 1). Livestock development of the state is yet to make an impact on the improvement of the socio-economic progress of the rural society, though the state possesses a large livestock and poultry population, most of it belonging to the weaker section of the people of the state. Mostly livestock is reared under small-holder system in the state.

The districts

Kolkata (formerly Calcutta), which is over 300 years old, is the capital of West Bengal. Geographically it is in 22° 30' North latitude and 88° 30' East longitude. It is primarily an urban area. It had over 60 PVPs at the time of the study. For the study, only 25 PVPs of all the PVPs were selected through simple random sampling. Only BVSc/BVSc & AH, and above practitioners constituted the sample.

Table 2. Information about West Bengal state

Area (km*km)	88,752
Boundaries	North : Sikkim and Bhutan South : Bay of Bengal West : Orissa, Bihar, Jharkhand and Nepal East : Bangladesh and Assam
Population	68,077,965
Males	35,461,898
Females	32,520,834
Urban population (%)	27.5
Population density (per km*km)	766
Sex Ratio (females per 1000 males)	917
Literacy rate (%)	57.7
Capital	Kolkata
No. of Districts	18
Principal language	Bengali
Total Livestock Population*	36731212
Cattle Population*	17324258
Buffalo Population*	985928
Sheep Population*	1414959
Goat Population*	14116943
Pig Population*	1017996
Total Poultry Population*	41915397
Annual Milk Production* (tonnes)	3,090,000
Annual Meat Production* (tonnes)	40,000
Annual Egg Production*	2,364,000,000
Annual Wool Production*(kg.)	608,000

Source : Anonymous 2001 Indian panorama. Manorama Year book 2001, Kottayam, Malayala Manorama, pp. 517-704; * 15th Quinquennial Livestock Census, 1994

South 24-Parganas is an adjoining district of Kolkata with its district headquarters at Alipore. Geographically, it lies between 21° 32' and 22° 40' North latitude and 88° 05' and 89° East longitude. It is primarily a rural

area with over 92% of the population distributed in rural areas. South 24-Paraganas was selected to compare the scenario in terms of private practice between urban and rural areas. It had only 25 PVPs at the time of the study and all the 25 PVPs were incorporated in the study.

Information about the districts is presented in Table 3.

Table 3. Information about Kolkata and South 24-Parganas

	Kolkata	South 24-Parganas
Geographical Position	22° 30' N latitude 88° 05 and 89° E longitude	21° 32' and 22° 40' N latitude 88° 30' E longitude
Area (km*km)	104.9	14135
Population (rural)	-	526727
Population (urban)	4399819	447759
Population (total)	4399819	5715030
Literacy rate (%)	77	44.63
Total livestock population	129363	2690445
Cattle population	16020	39840
Buffalo population	3093	24923
Sheep population	2795	2058366
Goat population	37878	1017784
Pig population	5919	47525
Total poultry population	108194	4204697

Surces : 15th Quinquennial Livestock Census, 1994, Directorate of Animal Resources and Animal Health, West Bengal

Bhadra K 2000 Dakshin Chhabis Pargana : Krisichitre Atit, Bartaman O Vobiswat Karmasuchi (Bengali). Paschim Banga, Volume 330, No.36, Calcutta, Ministry of Information, Government of West Bengal, pp. 149-160

Data collection and analysis

Data was collected through personal interviews with the help of a semi-structured interview schedule developed to study the profile of the private practitioners. The data was analysed through statistical methods like percentage and normal deviate test for proportions.

Results and Discussion

Age and education qualification of the PVPs

All the practitioners were male with the majority belonging to the 60 years and above age group (Table 4). However, the proportion of PVPs between 30 to 60 years group was higher ($P < 0.01$) in Kolkata whereas, the proportion of PVPs of 60 years and above age was higher ($P < 0.05$) in South 24-Parganas. It might be because Kolkata, being a metropolitan area, offers more opportunities to private practitioners.

Table 4. Age and education qualification of the PVPs (all were male)

	Kolkata	Parganas	ND
Below 30 years	2 (8)	3 (12)	0.47
30 to 60 years	9 (36)	1 (4)	2.83**
Above 60 years	14 (56)	21 (84)	2.16*
BVSc / BVSc&AH	7 (28)	17 (68)	2.83**
MVSc./ MSc	8 (32)	6 (24)	0.63
PhD	9 (36)	2 (8)	2.39*
Postgraduate diploma	1 (4)	0 (0)	1.01

Figures in parentheses indicate percentage, * and ** indicates significance at 5% and 1% levels, ND indicates Normal Deviate

The scenario, on the other hand, is quite different in developed countries with a well-established private veterinary sector like USA, where in 1980 the average age of the male private practitioners was 40 years and that of female practitioners was 30 years (Wise 1980). Like USA, Australia too has female practitioners (Health 1998). In South Africa, the veterinary private practice is male dominated like in India, but the average age of the PVPs was between 30 and 40 years (Odendaal 1994).

A higher (P<0.01) proportion of PVPs in Kolkata had postgraduate degrees/ diplomas, whereas the majority of the PVPs in South 24-Parganas had only BVSc./BVSc&AH. (Table 4). It can thus be seen that in urban areas like Kolkata, the PVPs had higher qualification than those in semi-urban and rural areas like South 24-Parganas. This might be due to the fact that in India, including West Bengal, the veterinary sector is dominated by the public sector and most of the veterinarians aspire to be absorbed in the public sector, sooner or later. Thus, most of the people enter into private practice very late after having completed some specialization as well as job experience in the veterinary field.

In countries where the veterinary sector is primarily privatised, people, on the other hand, enter into the field of private practice soon after graduation. For example, in USA, 76.2% of the 1999 veterinary graduates entered into the field of private practice while only 19.8% opted for advanced study (Wise and Adams 2000); and in Australia, as reported by Heath (1998), 96% of the veterinary graduates entered in private practice and only 2% did post-graduation.

The majority of the PVPs in Kolkata had urban background, whereas, most of the PVPs in South 24-Parganas had rural background, thereby recording a difference (P<0.01) between the two districts (Table 5). This probably indicates a tendency of the urban-bred PVPs to settle in urban areas and that of rural-bred PVPs to settle in rural and semi-urban belts.

The PVPs had their fathers mostly engaged in government service and farming whereas few were engaged in business and private service. Mothers of the PVPs were mostly housewives. (Table 5). The two districts did not differ significantly in this regard. In Indian society, caste is a social category whose members are assigned a permanent status within a given social hierarchy and contacts are restricted accordingly (Lundberg et al 1968). In India, the Hindu society is stratified based on the Caste System. There are thousands of castes and sub-castes presently existing in India, but broadly they are classified into three: the General Caste, Other Backward Caste (OBC) and the Scheduled Caste (SC)/ Scheduled Tribe (ST). Lineage is the only criterion in determining the caste of an individual in the Hindu society. And

Table 5: Native Place and background of the PVPs in Kolkata and South 24 Parganas

	Kolkata	Parganas	Total	ND
Rural	10 (40)	19 (76)	29 (58)	2.58**
Urban	15 (60)	6 (24)	21 (42)	2.58**
Fathers' Occupation				
Farming	6 (24)	11 (44)	17 (34)	1.49
Business	4 (16)	4 (16)	8 (16)	0.00
Government Service	12 (48)	7 (28)	19 (38)	1.46
Private Service	3 (12)	3 (12)	6 (12)	0.00
Mothers' Occupation				
Government service	3 (12)	1 (4)	4 (8)	1.04
Native place	0 (0)	2 (8)	2 (4)	1.44
House wife	21 (84)	22 (88)	43 (86)	0.41
Self-employed	1 (4)	0 (0)	1 (2)	1.01
Caste of the PVPs				
General	25 (100)	13 (52)	38 (76)	3.97**
OBC	0 (0)	7 (28)	7 (14)	2.85**
SC/ ST	0 (0)	5 (20)	5 (10)	2.36*

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

under Articles 16 (4), 335, 314, and 342 of the Constitution of India, reservations in government services are provided in favour of the SC, ST and OBC candidates with relaxation in age and qualifications and they are also exempted from the payment of application fees (GOI 2001). This brief description of the caste system in India will facilitate the readers, who are unfamiliar with the Indian caste system, to understand the categorization of the PVPs according to caste.

All the PVPs practising in Kolkata belong to general caste category, whereas a higher ($P<0.01$) proportion of PVPs belonging to OBC category and also

SC/ST category (P<0.05) in South 24-Parganas. However, overall, 76% of PVPs were from general caste category, indicating a clear dominance of general caste PVPs in private practice (Table 5). One possible reason for this might be that the general caste PVPs have more risk taking ability than those from the other castes. In addition, the reservation policy of the government of India might have rendered the general caste veterinarians' unemployed, who in turn might look for opportunities in private practice. This may lead to a trend in future, where veterinarians belonging to general caste category would increasingly join private practice at younger ages and in higher proportions, in comparison to their non-general caste counterparts.

Experience as veterinarians and private practitioners

Regarding experience as veterinarians, a higher (P<0.05) proportion of PVPs in South 24-Parganas had 40 years and above experience as a veterinarian. Most of the PVPs had more than 10 years of experience as a veterinarian (Table 6).

As veterinarians, the PVPs of South 24-Parganas had greater experience over the PVPs of Kolkata, but as private practitioners, the PVPs of Kolkata had comparatively greater experience. This might have happened since majority of the PVPs start practising in semi-urban and rural areas after retirement from government or public sector veterinary services whereas, in metro politan areas like Kolkata, greater opportunities might attract the veterinarians to start practising at an earlier age.

The figures in Table 6 also undicate that compared to their total experience as veterinarians, the PVPs in general had lesser experience as private practitioners in the study area. This is not the case in developed countries or countries with a well established private veterinary sector where the PVPs start practising soon after graduation. Wise (1980) reported that in 1980 in general, the male and female practitioners had 13 and 4 years of practising experience, respectively while the average age of the practitioners were 40 and 30 years for male and female practitioners, respectively.

Table 6. Experience as veterinarian and private practitioner

	Kolkata	Parganas	Total	ND
Experience as veterinarian, years				
Less than 10	2 (8)	3 (12)	5 (10)	0.47
10 to 20	3 (12)	0 (0)	3 (6)	1.79
20 to 30	8 (32)	1 (4)	9 (18)	3.55**
30 to 40	0 (0)	1 (4)	1 (2)	1.01
40 and above	12 (48)	20 (80)	32 (64)	2.36*
Experience as private practitioner, years				
Less than 1	0 (0)	0 (0)	0 (0)	-
1 to 5	2 (8)	7 (28)	9 (18)	1.84
5 to 10	6 (24)	6 (24)	12 (24)	0.00
10 to 15	4 (16)	7 (28)	11 (22)	1.02
15 to 20	5 (20)	4 (16)	9 (18)	0.37
20 and above	8 (32)	1 (4)	9 (18)	2.58**
Service Experience in Government Veterinary Departments				
Less than 10	6 (24)	0 (0)	6 (12)	2.61**
10 to 30	4 (16)	1 (40)	5 (10)	1.41
30 and above	13 (52)	21 (84)	34 (680)	2.43*
Not applicable	2 (8)	3 (12)	5 (10)	0.47

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

Service experience in government veterinary departments

The majority of the PVPs in both the districts had served in government veterinary departments. The data amply demonstrates that the retired veterinarians with 30 and more years of experience in government service were mainly engaged in private practice. However, Kolkata had a sizeable proportion of younger PVPs signifying a more conducive atmosphere for private practice in urban areas compared to rural and semi-urban areas. Also, it can be said that experience and the financial security gathered by the PVPs during the years of government service

might have helped them to accept the challenges of private practice. All the PVPs in the study area agreed that private practice was remunerative as well as satisfying.

Income per year from private practice

In overall, 70% of the PVPs had income over Indian Rs. 1,00,000 (US $ 1061) per year. A higher (P<0.05) proportion of PVPs in Kolkata had annual income of Rs. 3,00,000 (US $ 6364) and above per year, compared with those of South 24-Parganas.

The data (Table 7) reveal that veterinary private practice is quite remunerative as per Indian standards. It also reflects that in metropolitan areas like Kolkata, the average income of the PVPs was greater than those in predominantly

Table 7. Total income per year from private practice in Indian Rupees (in bracket in US $)

Income	Kolkata	Parganas	Total	ND
Less than 50,000 ($1061)	3 (12)	8 (32)	11 (22)	1.71
50,000($1061)-1,00,000($2121)	2 (8)	2 (8)	4 (8)	0.00
1,00,000($2121)-2,00,000($4243)	6 (24)	11 (44)	17 (34)	1.49
2,00,000($4243)-3,00,000($6364)	7 (28)	3 (12)	10 (20)	1.41
3,00,000($6364) and above	7 (28)	1 (4)	8 (16)	2.31*
Area of Practice				
Urban	25 (100)	9 (36)	34 (68)	4.85**
Rural	0 (0)	3 (12)	3 (60)	1.79
Mixed	0 (0)	13 (52)	13 (26)	4.19**
Other Sources of Income of the PVPs				
Nil	2 (8)	3 (12)	5 (10)	0.47
Family business	7 (28)	3 (12)	10 (20)	1.41
Pension	14 (56)	21 (84)	35 (70)	2.16*
Private job (part-time)	3 (12)	1 (4)	4 (8)	1.04
Government job (at University)	5 (20)	1 (4)	6 (12)	1.74

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

rural areas like South 24-Parganas. Interestingly in USA where private veterinary sector is well established and vibrant, Wise (1980), Wise (1991), Wise and Yang (1994), Gehrke (1995) and Wise and Adams (2000b) reported that income in large animal practice was higher than other animal practices and as reported by Wise and Adams (1999) the majority of the large animal practitioners were located in rural communities and small towns. Therefore, it may be construed that the professional income of PVPs in USA in rural and semi-urban areas is comparable to that of the PVPs working in urban areas. However, this is not the case in developing countries in general and India in particular, as is evident from the study.

Area of practice

All the PVPs in Kolkata practised in urban areas only. Whereas in South 24-Parganas the majority of the PVPs practised in urban and mixed areas and only 12% provided veterinary services to solely rural areas. A difference ($P<0.01$) was recorded between the districts in this regard (Table 8).

It can be said (Table 8) that at the moment, urban and mixed areas are more conducive to private practice than solely rural areas. Though in countries with vibrant private veterinary sector, many practitioners are found in rural areas but in the study area practitioners were mainly urban based. Also, in South Africa, the private practitioners were mainly city dwellers (Odendaal 1994). Inquiry into other sources of income apart from private practice, revealed that the majority of the PVPs had other sources of income apart from private practice. These were mainly pension after retirement from government service, family business, government job at University and private job.

This clearly reflects that very few PVPs relied solely on private practice and most of them had other sources of income to ensure financial stability. Even a few PVPs had more than one source of income. Probably, private practice as a profitable venture on its own is yet to gain popularity and acceptance in West Bengal in particular and India in general, as none of the states in India have an established private veterinary sector as of today.

Table 8: Reasons for joining private practice or Government Sevice

Reasons for joining private practice	Kolkata	Parganas	Total	ND
Attractive income	13 (52)	10 (40)	23 (46)	0.85
Better working conditions	20 (80)	9 (36)	29 (58)	3.15**
Better professional satisfaction	23 (92)	20 (8)	43 (86)	1.22
Freedom to operate as one desires	19 (76)	8 (32)	27 (54)	3.12**
Boredom with rural posting	5 (20)	0 (0)	5 (10)	2.36*
Little chance promotion in State Veterinary Services	2 (8)	0 (0)	2 (4)	1.44
Unemployment	2 (8)	3 (12)	5 (10)	0.47
To sharpen up skills in diagnosis and treatment	5 (20)	4 (16)	9 (18)	0.37
Inclination to join Government Services given an opportunity				
Would join	2 (8)	3 (12)	5 (10)	0.47
Not join	6 (24)	0 (0)	6 (12)	2.61**
Not applicable	17 (68)	22 (88)	39 (78)	1.71
Total	25 (100)	25 (100)	50 (100)	

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

As far as training in veterinary practice management is concerned, none of the PVPs had received any sort of training in veterinary practice management and all of them felt it was necessary. In countries where veterinary private sector is fully established, formal training courses on veterinary practice management have been started long back to equip the PVPs with managerial skills to manage private practice successfully. May be in the near future, with the establishment of a vibrant private sector, formal training on veterinary practice management may be offered in India too. Likewise, in Indonesia, which is currently experimenting with privatisation of veterinary services, the Indonesian Veterinary Association has recommended business and entrepreneurship training to any aspiring private service personnel (Deliveri 2001).

Better professional satisfaction, better working conditions, freedom to operate as one desires (and attractive income) were the most important reasons for the PVPs to join private practice. Significant differences between the two districts were recorded with Kolkata having significantly higher proportion of PVPs in favour of better working conditions and freedom to operate as one desires ($P<0.01$) and boredom with rural posting ($P<0.05$) than that in South 24-Parganas.

The data reveals that in metropolitan areas, the working conditions and freedom to operate were comparatively greater as compared to semi-urban and rural areas. Probably, this is the reason for the existence of a larger number of practitioners in metropolitan areas and cities in India than in semi-urban and rural areas.

The responses of the PVPs on their inclination to join government services reveal that of the 32% PVPs in Kolkata and 12% PVPs in South 24-Parganas eligible to join government services, majority of the PVPs (24% of 32% eligible) in Kolkata would not join, whereas, all the eligible PVPs would join government service in South 24-Parganas. A significant difference ($P<0.01$) was recorded between the two districts in this regard. Thus, the practice in metropolitan areas was more assuring and attractive than in non- metropolitan areas like South 24-Parganas.

The majority of the PVPs were associated with veterinary professional organizations (Table 9) but they did not have any professional organization representing the PVPs. It implies that the PVPs have not so far organized themselves as a potential group into an organization that could take care of their problems, welfare, working conditions and other opportunities. This might be due to a small number of practitioners, that are currently dominating the private practice in India in general and West Bengal in particular. The scenario might, however, change in future with the rising number of veterinarians joining private practice. In countries with a vibrant private veterinary sector, this type of organization exists. For example, in France, "Ordre des Veterinaires" (membership compulsory for all practitioners) and "Syndicat National des Veterinaires d'Exercice Liberal (SNVEL)" (membership optional) are professional organizations representing the PVPs (CNVSPA [AFVAC] 2001). "Vet-to-Vet Forum"

is one such internet association of the PVPs in USA (http://www.vetmedicine.about.com).

Table 9. Association with professional organizations and links to sources of information

	Kolkata	Parganas	Total	ND
Associated	23 (92)	25 (100)	48 (96)	1.44
Not associated	2 (8)	0 (0)	2 (4)	1.44
Possession of Drug Index				
Possessed	25 (100)	25 (100)	50 (100)	-
Did not possess	0 (0)	0 (0)	0 (0)	-
Possession of Veterinary Drug Index				
Possessed	10 (40)	16 (64)	26 (52)	1.70
Did not possess	15 (600)	9 (36)	24 (48)	1.70
Subscription to Veterinary journals				
Regular	20 (80)	10 (40)	30 (60)	2.89**
Not regular	5 (20)	15 (60)	20 (40)	2.89**

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

Types of animals treated

The PVPs were asked to rank order the different types of animals treated by them. Points were allotted to each rank arbitrarily (Figure 1). First rank was awarded the maximum (7 point) and seventh rank was given the minimum (1 point).

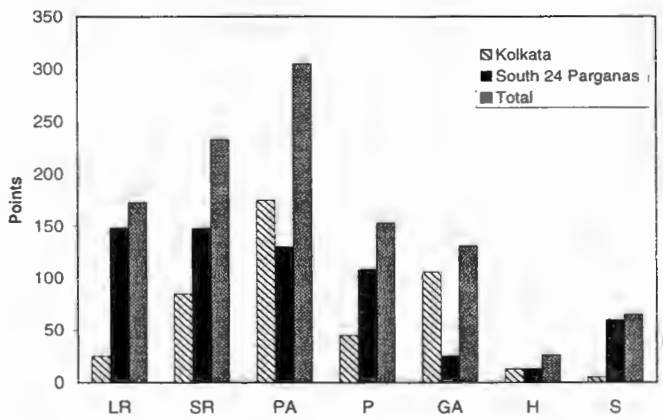

Figure 1: Types of animals treated by PSPs (LR Large Ruminants, SR Small Ruminants, PA Pet Animals, P Poultry, GA Game Animals, H Horses, S Swine)

Most of the practitioners in Kolkata were predominantly pet practitioners, treating cats and dogs (Figure 1). In South 24-Parganas, the number of PVPs treating large ruminants was higher. Similar findings were reported by Wise and Adams (1999) in USA, where large animal exclusive and large animal predominant practitioners are in the majority in rural communities while small animal exclusive and small animal predominant practitioners were the majority in urban areas.

All the PVPs in the study area possessed a drug index (Table 9), but not a veterinary drug index. In Kolkata, more PVPs had human drug index than veterinary drug index as they were engaged in the treatment of small animals (pets) mainly and for whom they prescribed mainly human drugs.

Subscription to veterinary journals and publication of articles

A higher ($P<0.01$) proportion of the PVPs in Kolkata subscribed to veterinary journals regularly compared with those in South 24-Parganas. This might be due to the fact that veterinary practice in metros like Kolkata is more challenging as well as competitive. Hence, the PVPs subscribed veterinary journals regularly to keep abreast with the latest know how of veterinary sciences. Regarding publication of articles, a higher ($P<0.01$) proportion of PVPs in Kolkata had published articles, mainly on clinical cases and research.

Table 10. Subscription to veterinary journals and publications

	Kolkata	Parganas	Total	ND
Subscription to veterinary journals				
Regular	20 (80)	10 (40)	30 (60)	2.89**
Not regular	5 (20)	15 (60)	20 (40)	2.89**
Publication of articles				
Published	19 (76)	8 (32)	27 (54)	3.12**
Not published	6 (24)	17 (680)	23 (46)	3.12**
Topics of the articles published				
Clinical cases	15 (60)	3 (12)	18 (36)	3.54**
Research article	14 (56)	6 (24)	20 (40)	2.31*
Popular article	9 (36)	3 (12)	12 (24)	1.99*

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

Attendance in scientific conferences and promotion of activities

Only 20% of PVPs attended scientific conferences regularly, 38% occasionally and 42% PVPs never attended any scientific conferences (table 11). No significant difference was recorded in this regard between the two districts. Probably, the PVPs owing to their busy schedule do not get time and opportunity to attend scientific conferences on a regular basis. Also, they might not consider it important from the point of view of their job.

Table 11. Attendance at Scientific Conferences

	Kolkata	Parganas	Total	ND
Attendance in Scientific Conferences				
Regularly	6 (24)	4 (16)	10 (20)	0.71
Occasionally	11 (44)	8 932)	19 (38)	0.87
Never	8 (32)	13 (52)	21 (42)	1.43
Promoting practice				
Advertisements in public places	13 (52)	14 (56)	27 (54)	0.28
Sign boards at chambers/ clinics	25 (100)	25 (100)	50 (100)	-
Local news papers	3 (12)	0 (0)	3 (6)	1.79
Internet	1 (4)	0 (0)	1 (2)	1.01

Figures in parentheses indicate percentage, * indicates significance at 5% level, ** indicates significance at 1% level and ND indicates Normal Deviate

PVPs mainly promoted their practice through signboards at chambers/clinics and through advertisements in public places in local areas. Few PVPs used local newspapers and internet for promoting their practice and the two districts did not differ significantly in this regard. The highly localized nature of their practice probably prevented them from using mass media like newspaper or internet. They relied mostly on media of local importance for the purpose. In contrast in USA, Hannah (2001) and Sigmon et al (2001) reported that some internet sites were prescribing treatment for animals and substantial participation by veterinary practitioners.

Conclusions

The private veterinary sector in India is still in its infancy with veterinarians retired from the government services dominating it and very few practitioners depending solely on it for livelihood. Not many young veterinarians dare to venture into the field of private practice, especially in semi-urban and rural areas, probably due to the unfair competition between private and government veterinarians. The fact that the government absorbs a large proportion of the service delivery cost (including the salary and benefits to the veterinary staff), together with the highly subsidized nature of these services, results in an un-level playing field for the PVPs to operate in. However, urban areas are increasingly offering opportunities for younger veterinarians to venture into private practice as compared to the rural areas. Moreover, with the increasing unemployment in the veterinary sector, because of the fiscal constraints currently being faced by the governments of most developing countries, the scenario is changing. Young veterinarians, waiting to get jobs in public services, either by default these days are going for higher education or resorting to private practice. And in coming years with the expected downsizing of the public sectors in developing countries, the proportion of PVPs venturing into private practice is bound to increase.

In countries with a vibrant private veterinary sector, practitioners venture into the field of private practice at a much younger age than those in India. The probable reason is that, in India, veterinarians are attracted more by government jobs and therefore prefer the security of public sector veterinary services than facing the challenges of private practice at the start of their career. Thus, a majority of veterinarians join private practice after retirement from the public sector. Although the PVPs largely cited professional satisfaction, freedom and better working conditions to be the reason for private practice, the real motive might be that they view private practice as a potential source of additional income to supplement their regular income sources, like pensions and businesses. The important differences between the PVPs of developing and developed countries are highlighted in Table 12.

In 1976, the National Commission on Agriculture recommended the Government of India to encourage private veterinary practice by providing suitable incentives to the veterinarians in order to augment the efforts of the government veterinarians in protecting the health of the livestock (GOI 1976). In spite of the recommendations, no encouragement was given to PVPs by the Government. However, the Government of India, faced with budgetary constraints, has now decided to encourage young veterinarians to start their own private practice through the provision of agri-clinics as envisaged in the budget 2001-2002 (Sinha 2001). Projects like the diversified agricultural

Table 12. Comparison between PVPs in India (particularly West Bengal) and those in developed countries

	India (West Bengal)	Developed countries
Average age	Comparatively older, majority 60 years and above age	Comparatively younger, mostly 30 to 40 years of
Sex	Male dominated	Male and female both found
Education	In urban areas majority have post -graduate specializations, whereas, in semiurban and rural areas, most often only graduate	Most PVPs have only bachelor degree in veterinary sciences in both rural and urban areas
Experience	Many years of working experience in public sector but little experience as private practitioners.	Enter in private practice soon after earning bachelor degree and thereby, gather comparatively greater experience as compared to their counterparts of the same age group in the study region.
Location	Majority in urban and semi-urban areas	In equal proportions in both rural and urban areas
Other sources of income	Most of them have other sources of income	Not known
Training in management	Nobody trained	Formal training courses on veterinary practice management exist
Professional organizations	None	Their own professional organizations
Promotion	Mostly through local media. Mass media less utilized	Utilize booth local and mass media.

support project (UPDASP) initiated in Uttar Pradesh and financed by the World Bank in which 180 private veterinary clinics will be set up throughout Uttar Pradesh (UPDASP 1999), might attract younger veterinarians to open their own private practice. These small steps taken by the government, definitely will have far reaching implications towards privatisation of veterinary services in the long run.

At the moment, however, the PVPs mainly exist in urban belts. In contrast, in countries with an established private veterinary sector like USA, Australia and other developed European countries, PVPs exist in both rural and urban areas, and comprise of both sexes. The incomes of the rural and urban PVPs do not differ markedly there and hence, no distinct preference among the PVPs about the area of practice is observed there. This is indicative of a strong rural economy, stable enough to support private veterinary practice. However, in India as well as in other developing countries with similar socio-economic conditions, the rural economy is characterized by utter poverty, and this discourages the PVPs to set up their practice in rural areas. There is also the unfair competition with the public sector.

In order to achieve a vibrant private veterinary sector in future, the Indian government must, in this regard, provide some encouragement for the PVPs to set up their practice in rural areas. The encouragement may be in the form of soft loans with easy terms. In the USA, where there is a highly remunerative private sector, nevertheless there are provisions for loans for the PVPs to establish private clinic. These loans will not only attract the young veterinarians but also may encourage female veterinarians to venture into the field of private practice. As of today, the private veterinary sector is male dominated.

The loans might also attract the PVPs to set up their clinics in rural areas and to set up practice in areas deprived of modern veterinary health care facilities. This is urgently needed in a country like India where the veterinary services sector, having a coverage of 30 to 40% in health services sector and 15 to 20% in AI sector, is till now unable to cater for the needs of the rural livestock owners, who resort mostly to paravets and quacks for treatment of their animals.

The conclusions of the study are:

- Private practice in India in general and West Bengal in particular is in the domain of mainly retired veterinarians who venture into private practice after retirement from the public sector.
- Though private practice generates a substantial amount of money (in Indian scenario), very few PVPs rely on it as a sole source of income. Private practice is viewed primarily as an additional source of income.
- Private practitioners are mostly restricted to urban belts and very few practise in rural areas.

For obvious reasons, the animal health service sector may not be fully privatized in developing countries like India, as these services under government provision still have a strong role. But, the private sector can play a complementary role to the public sector veterinary services by bringing in vast areas of the country under modern veterinary health care which are till the present date uncovered. Rough estimates put annual loss on account of epidemic and endemic diseases, parasites and other pests in India as approximately US$ 1.5 billion, which occur mostly due to absence of modern veterinary care in vast areas of the country.

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