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A comparative analysis of working environments of IT professionals in Kerala

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Abstract

The Information Technology (IT) sector has emerged as a major contributor to Kerala's socio-economic development. While Kerala's private IT industry has rapidly grown with technology parks, startups and global delivery centres, the public sector has also been enhancing IT adoption in governance and service delivery. This study compares IT professionals across these two distinct work environments to understand differences in demographics, job roles, work conditions, remuneration, career growth, motivation, challenges, and satisfaction. Kerala's IT professionals in both public and private sectors play crucial roles in the state's digital ecosystem. While the private sector excels in innovation and financial incentives, the public sector provides job security and stable work environments. A balanced approach combining strengths of both sectors could lead to an optimized professional experience.

Keywords: *Work environment, job satisfaction, work-life balance*

1. Introduction

Kerala has always been at the vanguard in the field of Information Technology and its growth potential of this sector is enormous. A large number of educated youth in Kerala are working in IT sector. Thiruvananthapuram is situated in the southern most part of Kerala. It is the largest city famous for its Information Technology, Tourism, Agriculture and Education. It is the most populous city with the population of 957,730 with 1088 females for every 1000 males. It is the major academic hub of Kerala with literacy rate 92.66 % .It is an academic and research centre within the country with an array of premier institutions. The establishment of the Techno Park in Thiruvananthapuram has further escalated the growth of the IT industry. It is one of the India's first Technology parks and it is the largest IT parks in Asia in terms of built up area. It is home to 355 IT companies. It employs more than 47,100 IT professionals. Thiruvananthapuram, which contributes nearly 80 percent software exports from the state, is considered to be the Silicon Valley of Kerala. The city has huge prospects for the growth of IT sector as it has recently been declared as a future 'smart city' by Government of India. In this context, the researcher has selected Thiruvananthapuram as the area of the study.

2. Objectives

- To examine the socio- economic background of professionals in Kerala
- To analyse the satisfaction level of IT professionals in both public and private sector in Thiruvananthapuram.

3. Data source and method

The collection of data from IT professionals was a difficult task. The researcher has decided to collect data from IT professionals working both in public and private forms to understand whether significant differences exist in the quality of work depending upon the nature of ownership. Collecting information from employees in the private sector was particularly difficult. The process was done until interview was conducted among 150 employees from public sector and 150 employees from private sector was completed. Therefore, the study is based on data collected from 300 IT professionals in Thiruvananthapuram district. Majority of the respondents belonging to the public sector are working in institutions like Keltron, C DIT, Kerala State IT Mission, Information Kerala Mission and respondents belonging to

private sector are working in various IT firms in and around Techno Park, Thiruvananthapuram.

4. Results and discussion

4.1 Social and economic background of the IT professionals in Kerala

Socio-economic features, along with the working and living environment, are the crucial contributory factors of physical and mental health of individuals. It throws light on parental education, parental occupation, family income and employees' background etc. This helps the researcher to analyze how much the professionals get support from family and how much they struggled to come into this position.

4.1.1 Gender- wise Classification of the IT Employees

Gender composition of the population is one of the primary demographic characteristics of human population. The population of Kerala is 3.34 crores, of which 1.60 crores were males and 1.74 crores females. The sex ratio for Kerala is 1084 females per 1000 Males and in Thiruvananthapuram district, it is 1088.The study shows that the male employees dominate in this sector, which is quite different from the gender composition of Kerala.

Table 1 : Gender- wise classification of the IT professionals

Gender	Public	Private	Total
Male	68 (45.30)	97 (64.70)	165 (55.00)
Female	82 (54.70)	53 (35.30)	135 (45.00)
Total	**150**	**150**	**300**

Source: Sample Survey
Note: Figures in brackets show percentages

Table 1 shows that out of the 300 professionals surveyed for the study, men outnumber women. Men form 55 percent of the sample whereas women form 45 per cent of the sample. But, there are differences between the gender composition in public and private firms. In public firms, women are greater than men and vice versa in private firms.

4.1.2 Age wise classification of professionals

Age has supreme importance in identifying an individual's ability to perform various tasks of life.The age of the IT professionals is important as it reflects the capacity to work. A peculiar feature of IT industry has been employment of a labour force from relatively younger age group.

Table 2 : Age wise classification of professionals

Age Group	Public	Private	Total
20-30	59 (39.33)	126 (84.00)	185 (61.67)
30-40	74 (49.33)	22 (14.67)	96 (32.00)
40-50	11 (7.34)	2 (1.33)	13 (4.33)
Above 50	6 (4.00)	0 (0.00)	6 (2.00)
Total	**150 (100)**	**150 (100)**	**300 (100)**

Source: Sample Survey
Note: Figures in brackets show percentages

Table 2 shows the age- wise classification of professionals and it reveals that most of the professionals are in the age group of 20 to 30 years old. In public IT firms, the highest percentages of professionals are from the age group of 30 to 40 years but in private sector, majority of the sample (84percent) is in the age group of 20-30 years. This means that private sector needs young and fresh professionals than public sector. In public sector, there is age bar for working but in private even though there is no age limit, most of the respondents belong to the age group of 20-40. The study reveals that the IT sector is limited to young people.

4.1.3 Marital status of IT professionals

Marital status refers to whether an employee is single, married, divorced, widowed or separated. In IT sector, the professionals belong to the younger age groups and a large number of them are single.

Table 3 : Distribution of the sample by marital status

Marital Status	Public	Private	Total
Single	41 (27.33)	107 (71.34)	148 (49.34)
Married	100 (66.67)	41 (27.33)	141 (47.00)
Widow(er)	4 (2.67)	0 (0)	4 (1.33)
Divorced	1 (0.66)	0 (0)	1 (0.33)
Separated	4 (2.67)	2 (1.33)	6 (2.00)
Total	**150 (100)**	**150 (100)**	**300 (100)**

Source: Sample Survey
Note: Figures in brackets show percentages

Table 3 reveals the number and proportion of employees on the basis of their marital status. Almost 50 percent of the sample respondents are single and 47 percent of IT professionals are married. It can be seen that in public sector, married people are more compared to those who are single. The public sector has 66.67 percent of the married professionals whereas the proportion of single employees is just 27.33 percent. In private, reverse is the case. Single professionals are greater (71.34 percent) compared to married ones (27.33 percent).

4.1.4 Religion wise distribution of IT professionals

The religious backgrounds of the IT professionals are shown in Table 4

Table 4 : Religion wise Distribution of IT Professionals

Religious group	Nature of Firm		Total
	Public	Private	
Hindu	111 (74.00)	97 (64.67)	208 (69.34)
Christian	22 (14.67)	30 (20.00)	52 (17.33)
Muslim	17 (11.33)	22 (14.67)	39 (13.00)
Others (specify)	0 (0)	1 (0.66)	1 (0.33)
Total	**150 (100)**	**150 (100)**	**300 (100)**

Source: Sample Survey
Note: Figures in brackets show percentages

As Table 4 shows, almost 70 percent of the professionals are Hindus. While Christians form 17.33 percent and Muslims form 13 percent of the sample. Representation of Christians and Muslims is higher in Private sector than in Private sector.

4.1.5 Mode of appointment

Mode of appointment can be divided as Permanent and Contract.

Table 5 : Number and Proportion of Employees by the nature of appointment

Mode of Appointment	Nature of Firm		Total
	Public	Private	
Permanent	36 (24.00)	46 (30.67)	82 (27.33)
Contract	114 (76.00)	104 (69.33)	218 (72.67)
Total	**150 (100)**	**150 (100)**	**300 (100)**

Source: Sample Survey
Note: Figures in brackets show percentages

Table 5 shows another peculiar feature of IT sector employment in India. It may be seen that in both public and private firms majority are employed on contract basis. The proportion of employees on contract basis is higher in public sector firms as compared to the private sector firms.76 percent is the value for public whereas the corresponding value for private is 69.33 percent. On the overall, contractual professionals account for 72.67 percent of the sample.

4.1.6 Experience of IT professionals

Work experience is an important factor in determining the employability of people. As the IT industry is a newly emerging industry, it has a comparatively younger workforce than other industries. As the respondents belong to younger age, their experience is comparatively low. Work experience profile of professionals from the collected data is presented in Table 6

Table 6 : Experience of the IT professionals

Experience (Years)	Public	Private	Total
Less than 1 year	16.43	32.66	24.54
1-5 Years	42.14	52.67	47.41
6 – 10 years	26.43	12.67	19.55
11-15 years	13.57	0.67	7.12
16 & above	1.43	1.33	1.38
Total	**100**	**100**	**100**

Source: Sample Survey

Table 6 reveals that the most of the IT professionals (47.41 percent) are of 1-5 years of experience (42.14 percentage in private sector and 52.67 percent in private sector). In private sector, 85.34 percent of professionals have less than 5 years of experience, whereas 14.26 percent of professionals have more than 6 years of experience in that particular sector. But in public sector 41.43 percent of professionals have more than 6 years of work experience.

4.1.7 Monthly income of the professionals

Data collected from a sample of 300 IT professionals showed that most of the sample respondents received income less than 20,000. In Public sector, nearly 87% of persons received the income below Rs.40,000 per month and in Private sector, it is 84%. Evidence from the sample respondents suggest that, in terms of the first component (income of employees) of adequate earning and productive work, employment in IT exhibiting deficit in Decent Work. Other components are related to whether individuals have a chance for self-development in work and get income through training and up gradation of technical skills.

Table 7 : Monthly income of the professionals

Income Level	Public	Cumulative frequency	Private	Cumulative frequency	Total
Less than 20000	85 (56.66)	85 (56.66)	60 (40.00)	60 (40.00)	145 (48.33)
20001-40000	46 (30.67)	131 (87.33)	66 (44.00)	126 (84.00)	257 (85.67)
40001-60000	12 (8.00)	143 (95.33)	16 (11.00)	142 (95.00)	285 (95.00)
60001-80000	4 (2.67)	147 (98.00)	1 (0.67)	143 (95.67)	290 (96.67)
80001-100000	2 (1.33)	149 (99.33)	4 (2.50)	147 (98.17)	296 (98.67)
Above 100000	1 (0.67)	150 (100)	3 (1.83)	150 (100)	300 (100)

Source: Sample Survey
Note: Figures in brackets show percentages

4.1.8 Determinants of promotion

In IT sector, determinants of promotion vary from other sectors. Since employment in IT sector is skill based, promotion depends on employees' performance appraisal. These determinants of promotion give a completely different working condition from traditional type of employment

Table 8 : Major determinants of promotion (Percentage)

Determinants of Promotion	**Nature of ownership**		**Overall**
	Public Firms	**Private Firms**	
Employee's performance appraisal	48	63	55.5
Tenure of service	30	2	16
Productivity/Quality of work	0	7	3.5
Skill up gradation	0	7	3.5
Leadership/Managerial Skills	4.8	6	5.4
Satisfactory client relationships	0.2	3.2	1.7
Effective communication and service delivery	0	6.7	3.35
Frequent overstays at the workplace	0	0.7	0.35
Readiness to travel	0	2	1
Strong Personal mentors/contacts	5	1.4	3.2
Others	12	1	6.5
Total	**100**	**100**	**100**

Source: Sample Survey

The above Table 8 reveals that 55.5 percent of IT professionals are of the opinion that performance is important than tenure of service. While 48 percent of employees in Public sector are of the opinion that promotion is based on performance, the corresponding figure in Private is 63 percent. It can be seen that employees' performance is the important criterion for promotion in Private sector than in Public sector. At the same time, 30 percent of professionals in public sector expressed their opinion that their promotion is based on tenure of service but in private, the corresponding percentage is 2 percent.

4.1.9 Reasons of overstay

The average hours spent by IT employees may vary in both sectors. In private IT sector employees work longer hours than in Public. In private, employees spent average 9.12 hours

per day while in public, it was comparatively lower i.e., 7.71 hours. Average hours of work per day for the sample of 300 IT professionals is 8.41 hrs which exceeds the working norm of 8 hours. Employment in IT sector is in the form of project completion which is time bound and since majority of the market is US based, the nature of work requires different time zones and to make both the parties constantly in touch with each other, 'flexi time work ' was introduced in IT sector. Often project deadlines cause work pressures and professionals overstay in office to complete the work. Thus long working hours, overstays, weekend works, work on religious or public holidays are common in this sector. Reasons for overstay can be due to voluntary reasons or involuntary reasons. Personal interest, ambition, or dedications are the voluntary reasons for longer working hours. Involuntary reasons are deadline pressures, extra income or directions from team leaders etc.

Table 9 : Reasons of Overstay (Percentage)

	Nature of Ownership		**Over all**
Reasons for Overwork	**Public**	**Private**	
Own interest in project work	22.30	11.20	16.75
Extra remuneration / salary	0	13.90	6.95
Work pressures	48.70	52.80	50.75
Direction from managers/ team leaders	29.00	16.60	22.80
Flexi timings	0	5.50	2.75
Total	**100**	**100**	**100**

Source: Sample Survey

The Table 9 reveals that reason for overwork in IT sector. Almost 51 percent are of the opinion that work pressure is the major reason for overwork in office. In private sector, 53 percent are of the opinion that there is overwork in IT sector and the corresponding figure in public sector is 48.70 percent. Direction from managers is another reason for over work in IT sector. It also shows that pressure from managers is high in public sector. Almost 17 percent are of the opinion that they are doing extra work due to own interest in their work.

4.1.10 Effect of Longer Working hours

Even though, the reasons for overtime work are more or less same for public and private employees, its effect varies remarkably between these two groups of work force. The effects of overwork in IT sector are shown in Table 10

Table 10 : Effects of Overstay (percentage)

Effects of overstay	**Nature of ownership**		
	Public	**Private**	**Over all**
Deterioration in physical and mental health	52.56	56.18	54.37
Disturbance in work-life balance	26.46	27.06	26.76
Reduced productivity	14.86	8.08	11.47
Excessive work pressures	6.12	8.68	7.4
Total	**100**	**100**	**100**

Source: Sample Survey

It is clear from Table 10 that deterioration in physical and mental health is the major effect of overstay in office. Almost 55 percent of employees suffer from this problem. This is high in private sector (56.18%) than the corresponding value in public sector (52.56%). Apart from the deterioration in physical and mental health, disturbance in work life balance is another major issue in IT sector. The harmful effects of overtime work are more evident in the case of private employees as compared to public employees.

4.1.11 Work life balance

Work-life balance has become a serious issue. There is a drastic change in the nature of work and work environment and this makes an imbalance in work-life. This leads to dissatisfaction and disappointment among employees and it will negatively affect their mental and physical well-being and also career development. Since the employees have to work for long hours at workplace, they get only less time to spend in family. Due to these imbalances, most of highly qualified women quit from job after starting a family.

4.1.11.1 Details of work-life balance

Work-life balance denotes the maintenance of perfect balance between individual life and professional life that may lead to job satisfaction and excellence in job.

Table11 : Work life balance (Percentage)

Work Life Balance	Public	Private	Overall
Longer working hours and flexi time work	58.70	63.41	61.06
Health problems due to nature of work	93.62	60.42	77.02
Absence of workers Union	33.81	90.23	62.02
Night Shifts	18.00	38.30	28.15
Lack of socializing with relatives, friends etc.	44.06	86.52	65.29
Lack of recreations	39.57	88.04	63.81

Source: Sample Survey

Table 11 shows the work life balance of IT professionals. It is important to note that more than 60 percent of IT professionals reported that they have health problems due to the nature of work and they also have long working hours and flexi time work. Also they are of the opinion that lack of socialization and recreation, absence of trade union also affect their work-life balance. 93.62 percent of persons have some health problems due to the nature of work in public sector whereas the corresponding figure in private sector is 60.42 percent. This is due to the reason that majority of professionals in public sector are in the age group of above 30 years.

4.1.12 Health problems from career

Excessive work and longer working hours have a detrimental impact on the physical and mental health of the worker. In IT sector, professionals have to work more than 9 hours. Even though, work in IT sector is physically risk free, it negatively affects the well-being of the employee. This leads to a number of physical health problems like frequent backaches, eye strain, cervical spondylitis and insomnia. This also has huge impact in the mental health of the employees. Many of them suffer from depression, anger, excessive stress and overall a negative attitude to entire life. This affects the employees' overall performance and promotion chances in his/her career. Health problems also negatively affect the family life, hence makes a reflection in the work-life balance of the employees.

Table 12 : Health Problems of Workers (Percentage)

Health Problems	Public Firm	Private Firm	Total
Eye strain/ weak eyesight	39	41	40
Frequent backaches	31	32	31.5
Cervical spondylitis	6	7	6.5
Obesity	5	3	4
Depression	4	3	3.5
Insomnia	6	2	4
Stress/ mental strain	9	12	10.5
Any other(please specify)	0	0	0
Total	**100**	**100**	**100**

Source: Sample Survey

In the Table 12, eye strain and weak eyesight are the major health problem faced by both public and private employees followed by incidents of frequent backaches. In this survey, it can be understood that suffering is high in private sector than in public sector. Stress or mental strain is another area of concern, which is high in private than in public.

Conclusion

Different types of health problems, slow carrier progress, inadequate earnings, no overtime remuneration are the basic problems faced by the most of the workers in public sector. But in private sector, the problems can be categorized as long working hours, inadequate earnings, monotonous work, tight deadline, job stress, too much work pressure, work life imbalance, job insecurity and health problems. It can be found in the light of this study that all the problems listed above are due to the lack of decency in IT sector. Since IT industry is an emerging promising industry, many youngsters are attracted to this sector. Hence, it is mandatory to provide good working conditions for the promising youth to save them from over exploitation and insecurity. It is also the responsibility of the State to ensure the basic rights for our young generation. This necessitates the urgent implementation of these indicators in this sector. In this context, this study is proven itself as an immensely significant one. Even though, many employees are working on contract basis, public IT sector is comparatively better than private IT sector in the analysis based on Decent Work.

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