

Employees Working Conditions and Health Problems of Information Technology - Enabled Services : A study with reference to Bengaluru

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Abstract

Employees working in Information Technology enabled services like business process outsourcing and call centers are facing various health and psycho social disorders. The previous research examination of working and health hazards confirms that employees are under going different problems. Employees are suffering different pains to deliver various needs of local and abroad customers. On account of stress they face while delivering service to customers, it is becoming difficult to maintain work life balance between professional and family life. The Human Resource Management has to implement suitable strategies aiming at twin challenges of retaining the providing employees and providing a satisfactory and acceptable working conditions.

Human resources are assuming significance now-a-days. Much attention has to be paid today in order to retain the employees since new appointment is costly. Further, the talented employee who leaves the organisation may be a potential danger and competitors may take advantage. The growth of science and technology as well as well established education and research institutions made Bengaluru as the hotspot global outsourcing industries (Vinod Kumar GC et al. 2016). The educated youths at Bengaluru have taken to the jobs in this new knowledge economy. The present paper aim is to study and explore and find out the type of problems at work place and the type of health hazards they face. The study's findings reveal that there several health hazards that requires immediate redressal and improve facilities at workplace.

KEYWORDS: Business process outsourcing (BPO), Health Hazards, Educated Population, Redressal, Retention, challenges, collective bargaining.

1. Introduction

BPO is the fastest growing segment of ITES industry. The fastest growth in the BPO is driven by factors like economy of scale, business risk mitigation, cost advantage, utilisation improvement and superior competency. At present India is now the favoured market of BPO companies among other global giants. A high level competition is posed by Australia, China, Philippines and Ireland. The emerging growth in BPO Sector is driven by cheap labour costs and availability of huge talented English spoken educated youths. Investor friendly attitude of India and unique geographic location have made the BPO industry very popular. The National Association of Software and Services Companies (NASSCOM) 2009 stated that BPO has created over a third of one of the prominent electronic housekeepers to the world, taking care of a host of routine activities for multinational firms (Babu, 2004).

Despite a tremendous growth in BPO sector, still conceptualization of its long term implication is in nascent stage. There are challenges and anxieties on the

substantiability and creditability of this sector, in terms of employment generation and provision for best working conditions. The research reveals the presence of insecurity in the mind of employees which includes growing labour turn over, stress at work place and decreasing collective bargaining power of employees. Computer work has generated a new genre of occupational health problems. An awareness is to be created about the occupational health problems among IT professionals. If these problems are ignored, may cause crippling injuries, compelling the employee to leave the job. There is raising demand among the employees and employers to study health status among the employees since the number of workers affected by health hazards is growing. According to National Association of Software and Services Companies (NASSC) the number affected by health hazards was 250,000 in March 2004 and touched 1-2 million in the year 2009. The stress factors, the working conditions and the ergonomic stature of workers in the BPO sector is causing several psych-social health problems (Keshachandran et al. 2006). According to NASSC (2009) that 30% of the total work force in IT industries is women professional. The previous studies reveal that the huge percentage of workers working in BPO and KPO have been facing health problems. The studies reveal that long working hours, night shifts, work pressure etc., is directly producing severe impact on the physical, mental and social health.

2. Statement of the problem

Bengaluru is appropriately called as silicon valley. Innumerable ITES employees are working in Bengaluru attending local and offshore employee needs. As technology improves and induction of innovative technologies in line with new developments also affects the stress, health and digestive ailments. Innumerable employees are suffering from finger pain on account of constant use of mouse and long working hours causes a lot in maintenance of work life balance. BPO industry in Bengaluru is witnessing a high rate of attrition on account of associated problems in the industry. Various managements are introducing different strategies of grievance resolution. The availability of skilled English speaking youngsters capabilities should be used to the best extent. Better pay, better working conditions, better career path and allowing employees to form their union may solve the ailments associated to this industry. UK, Australia and Ireland have already started proving some benefits to the employees which has rendered long stay of the employees.

3. Objectives of study

- 1) To study the impact of age of respondents on work.
- 2) To analyse the awareness of nature of health problems.
- 3) To analyse the working conditions awareness by the ITES employees.

4. Hypotheses

- (1) Age is not impacting the work performance of employees.
- (2) There are no health problems at ITES industry in Bengaluru.
- (3) Workers are not aware of working conditions.

5. Research Design

The researcher has used both primary and secondary data. The researchers has used descriptive study with the main objective to define the state of affairs as it exists and mainly involved surveys and fact finding engineers of different kinds. The researchers

has used descriptive research to identify the health problems and analytical type also used to analyse the existing facts from the data collected.

6. Sample of the study

Using the formula suggested by Bill Godden the sample of the study was decided.

$SS = \text{infinite where population is } > 50,000$

$SS = Z^2 \times (P) \times (i-p)/c^2$

$Z = Z \text{ valueA (e.g. 1.96 for a confidence level)}$

$P = \text{Percentage of population picking a choice, expressed as decimalB.}$

$C = \text{Confidence interval, expressed as decimal.}$

$(\text{e.g. } 0.04 = \pm 4 \text{ percentage points})$

$AZ \text{ values (Cumulative Normal Probability Table)}$

$1.645 = 90\% \text{ Confidence level}$

$1.96 = 95\% \text{ Confidence level}$

$2.576 = 99\% \text{ Confidence level}$

$SS = 3.8416 \times 0.5 \times 0.5 / 0.0016 = 0.9604 / 0.0016$

$= 600.25 \text{ or } 600.$

7. A. Sampling Technique

Convenient sampling technique has been followed to collect the data since the workers are available only at the time of reporting and leaving at the end. The interval system is defined but such interval may be sufficient to drink a cup of tea and many a times they are not available for interview. Interested employees have provided valuable information.

Sample Table

Nature of firm	Firms & No. of Respondents	Total
Small scale where employees are in between 50-100	50 x 20	100
Medium Scale concern		
Employees strength upto 500	10 x 30	300
Large scale concern	10 x 20	200
Above 500 employees		
Total		600

B. Sources of data

The study uses both primary and secondary data. The primary data was collected with a questionnaire which was previously tested. In order to avoid non-response and delay the questionnaire was administered as schedule which yielded better results. Secondary sources were journals, websites and books which were referred and data was compiled. The questionnaire was designed covering questions: (1) Dichotomns scale (Yes or no); and (2) Likert 3 and 5 point scale and (3) statements.

C. Satisfied tools and Techniques

Chi-square to analyse the variations in the age of respondents was used to interpret the data. In addition to Chi-square ANOVA quantitative metric was also performed to measure the presence of variations in the data.

7. Review of Literature

Bhatnagar (2007) stated that attrition is one of the most important issues in many organisations. It depends on many factors like internal job posting, work profile, personal causes, better career opportunities. Further, the author says that human capital involves both tangible and intangible costs. Besides the tangible costs like replacement cost it also involves intangible cost like loss of intellectual capital and low employee morale. Employees when they quit the organisation carry most invaluable tacit knowledge especially in IT / ITES organisations and they can become a competitive advantage for the competition. The trend suggest that management should design prefer strategies aiming at retention of employees.

Premilla D'Cruz and Ernesta Noronha (2013) expressed that the experiences of physical and mental strain, under the circumstances, was inevitable. Health problems such as loss of appetite, changes in body weight, acidity, nausea, constipation, colds and coughs, diabetes, blood pressure, insomnia, fatigue depression, drowsiness, anxiety are commonly reported. Further the author expresses uninterrupted call flows, apart from continuous listening and talking lead to oral and aural complications necessitated continuous use of various kinds of technology, resulting in sensory motor problems linked to the visual and auditory systems and repetitive strain injury. The sitting nature of job coupled with no locomotion causes stiffness cramps and backaches.

Subbaiah, M. et al. (2008) investigations on BPO and ITES Sector reveals that the share of IT software industries and performance of IT sector are expanding in the world. These factors are led by increasing in traditional demand, creation of new ones like and Enterprise Application Integration (EAI) and engineering in new areas. According to NASSCOM, ITs and ITES will be enhanced by MNEs and global soft gaints such as Microsoft, Oracle and SAP.

Tailor and Bain (1999) studied job design elements and techno bureaucratic controls together contributed to a high work environment for employees. These employees are encountered with prominent digital displays which emphasize the number of staked calles waiting to be answered and describes such a situation as an assembly line in the head which cause perennial pressure an agents, and waiting for the completion of the call in the order of queue.

Tomingas (2002) study reveals that 86% female and 68% male call center staff reported musculo-skeletal problems especially pain in the neck and shoulder regions.

Vindokumar et al. (2016) have expressed that various psycho-social problems were in the form of disruptive family relations, poor recreation opportunity, eating habits. Very bad family relations were reported by only 5 (16.66%) of women knowledge workers in BPO and KPO. 15(50%) reported average domestic bloss, while 10(33.33%) had very good family support 19(63.33%) respondents reported in their study that their off days and holidays did not coincide with that of spouse and other family members adversely affecting the quality of family life. To cope with the above problems different workers preferred different ways to realx and destressing.

8. Survey Findings

Table-1 reveals data about age of the sample respondents. It is an important independent variable that decides the way in which respondents perceive and define

the situation in which they actively participate and recognise routine duties. Further age also defines the group of employees who take challenges to struggle for living and promotion of their livelihoods. The work situation is severally influences the work schedule since age influences behaviour work force decides in any organisation the productivity. Table reveals that 77% of respondents belongs to the age group of 21-30 years followed by 12% of sample in the age group of 31-35 years. Further the table reveals clearly the increase in the age the number of respondent employees reduces and vice-versa. The table clearly exhibits that BPO industry in Bengaluru is predominately dominated by young employees. This trend has certain impacts on the stability, structure, productivity and retention of employees and better preference of industrial relations can also be provailable. Chi-square statistical tool rejects H₀ and accepts H₁ and hence it can be concluded here that there exists significant variation in the data.

Table-2 highlights about the respondents awareness and caused by various health ailments. 366 respondents out of 600 highly correct followed by the 204 respondents express correct and only 30 somewhat correct. Out of 366 respondents who said highly correct 85 said about physical health ailments, followed by 73 about digestive problems, 58 about other problems, like sedentary nature, blood pressure, asthma etc. 55 each psychological ailments and performance evaluation through quality and quantity of call attended, and 40 about poor communication with regard to work matters. Out of 204 respondents who said correct, 45 said about physical health ailments, 40 about psychological ailments, 35 about digestive problems, 30 about poor communication, 28 about performance evaluation through quality and quantity of call attended, and 26 about other problems. Out of 30 who said somewhat correct, 9 said about physical health ailments, 7 about digestive problems, 5 about psychological ailments, 4 poor communication, 3 performance evaluation through quality and quantity of call attended and 2 about other problems ANOVA quantitative metric fails to accept H₀ and accepts H₁. Therefore it can be concluded here that exist significant variation in the data.

Table-3 reveals data about ITES employees working conditions at Bengaluru. 329 respondents strongly agree over the different types of working conditions problems, followed 201 agree, 21 stand neutral, 28 disagree and 21 strongly disagree. Out of 329 respondents who expressed strongly agree, 55 said about inconvenience shifts, 54 about performance evaluation through automatic call distributor, 52 about failure to maintain work life balance, 48 about lack of career prospects, 45 about poor relation with colleagues and supervisor, 40 about unsatisfactory working conditions and 35 about incorrect work station. Out of the 201 respondents who said agree, 34 said about unsatisfactory working conditions, 32 about inconvenience shifts, 31 about poor relation with colleagues and supervisor, 30 about performance evaluation, 27 about failure to maintain better work life balance, 25 about lock of career prospects and 22 about incorrect workstation. Out of 21 who stood neutral a majority of 5 said about unsets factory working conditions, 4 about inconvenience shifts 3 each about lack of career prospects and incorrect work station. Out of 28 who said disagree, a majority of 6 said about unsatisfactory working conditions, 5 each about inconvenience shifts and lack of career paths. Out of 21 who said strongly disagree 4 each said about inconvenience work shifts and unsatisfactory working conditions and 3 about failure to maintain better work life balance and further 3 each about lack of proper career prospects and incorrect workstation. The ANOVA tool fails to accept H₀ and accepts H₁ and therefore it is conclude here that there exists significant variation in the data.

9. Conclusion

The ITES employees at Bengaluru expressed their concern about different health hazards they undergo while discharging their services. It is predicted that these hazards will further continue with introduction of innovations and computer capacity increase and further this influence will continue in coming years and health hazards may further grow. As technology advances, the stress also increases. This technology stress brings extra pressure on the employees of ITES at Bengaluru. Many of the employees working in call centers said about that their voice is not insured and continuous speaking to local and off shore brings tongue and throat infection and they have demanded that their voice must be insured. The managements are how to plan to resolve all grievances of employees so that the employees may stay in the organisation and sustainability and plan to resolve all grievances of employees so that the employees may stay in the organisation and sustainability and productivity may be achieved through satisfied workforce.

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Table - 1 : Age composition of Respondents

Age Composition	Frequency	Per cent	χ^2 value
Below 20	05	1.00	736.47888*
21 - 25	260	43.00	
26 - 30	200	33.00	
31 - 35	70	12.00	
36 - 40	40	7.00	
41 - 45	20	3.00	
45 and above	05	1.00	
Total	600	100.00	

Source : Field Survey χ^2 (736.4788, df = 1, tx = 12.592)

* Sig. @ 5% level

Hypotheses

H0	There exist no significant variation in the data	Reject
H1	There exist significant variation in the data	Reject

Chi-square Table

Calculated value = 736.4788, df = 6, sig. level = 5%, tv = 12.592

Chi-square Analysis

The calculated value being 736.4788 higher than the TV = 12.592 @ 5% level of significance with df = 6 fails to accept H0 and accepts H1. Therefore it is concluded here that there exist significant variation in the data.

Table - 2: Respondents awareness of nature of health problems

Nature of health problems	HC	C	SWC	T
Physical Health Ailments (Musculo-skeletal disorders, headache, fever, throat infection, stress, sickness, age, voice and hearing problems)	85	45	9	139
Digestive Problems (Hyperactivity, bloating, flatulence, irritating cough, breathing troubles, hearing problems)	73	35	7	115
Psychological ailments (Bad family relationship, poor recreation opportunity eating liability Highly monotonous, Repeatative)	55	40	5	100
Poor communication with regard to work matters Performance evaluation through quality and quantity of call attended	40	30	4	74
Other problems like sedentary nature Blood pressure, Asthama, Failure to maintain work life balance	55	28	3	86
	58	26	2	86
Total	366	204	30	600

Source: Field Survey

Hypotheses

H0	There exists no significant variation in the data	Reject
H1	There exists significant variation in the data	Reject

ANOVA Table

Source of variation	SS	df	MS	F-ratio	5% F-limit (from F table)
Between the sample	9412	(3-1)=2	9412/2 = 4702	4702/103.33 = 45.50	
Within the sample	1550	(18-3)=15	1550/15 = 103.33		(2,15) =3.68
Total	10,962	(18-1)=17			

Source: Field Survey

ANOVA Analysis : The calculated value being 45.50 higher than the TV = 3.68 @ 5% level of significance with df V1 = and V2 = fails to accept H0 and accepts H1.

Table - 3 : Respondents awareness of working conditions

Working conditions	SA	A	N	DA	SDA	T
Inconvenience shifts	55	32	4	5	4	100
Lack of career prospects	48	25	3	5	3	84
Incorrect work station	35	22	3	3	3	66
Performance evaluation through Automatic call Distribution	54	30	2	3	2	91
Poor relation with co-employees and supervisors	45	31	2	4	2	84
Unsatisfactory working conditions	40	34	5	6	4	89
Failure to maintain work life balance due to stress and other causes	52	27	2	2	3	86
Total	329	201	21	28	21	600

Source: Field Survey

Note : SA - Strongly agree, A - Agree, N - Neutral, DA - Disagree, SDA - Strongly disagree.

Hypotheses

H0	There exists no significant variation in the data	Reject
H1	There exists significant variation in the data	Reject

ANOVA Table

Source of variation	SS	df	MS	F-ratio	5% F-limit (from F table)
Between the sample	11186.8106	(5-1)=4	11186.8106/4 = 2796.7026	2796.7026/ 18.0849 = 154.64	
Within the sample	542.5471	(35-5)=30	542.5471/30 =18.0849		(4,30) =2.69
Total	11729.3577	(35-1)=34			

Source: Field Survey

ANOVA Analysis : The calculated value being 154.64 higher than the TV = 2.69 @ 5% level of significance with df V1 = 4 and V2 = 30 fails to accept H0 and accepts H1.