

The Demographics of Employee Green Behaviour among IT professionals

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Abstract- Over-exploitation of natural resources has left humans with meagre and depleting amount of resources which has to meet the present need as well as the needs of the future generation. Earth has reached its tipping point in terms of climate change and global warming. Preventing it from further damage is the key to the subsistence of humans. Organisations play a significant role in the destruction of the environment. Of the many industries, IT organisations add a significant percentage to the carbon footprint which exacerbates global warming. Employee Green Behaviour (EGB) is one of the several methods employees can adopt to protect the environment. When employees engage in pro-environmental behaviour, it not only benefits them individually but also benefits the organisation by boosting productivity. Further, it serves as a means to curb carbon footprints. Reviews suggested the role of employee demographics in influencing their pro-environmental behaviour. Hence, this paper throws light into the demographics of employee green behaviour of IT professionals.

Keywords - Over-exploitation, organisations, carbon footprint, climate change, global warming, employee green behaviour, IT professionals

I INTRODUCTION

In the recent years, the skyrocketing-development of organisations has been associated with the environmental degradation and depletion of natural resources. Nevertheless, the exploitation of resources poses a grave threat to humans as a whole. The Brundtland report [1] mentioned “environment or development” as a false dichotomy. Instead, the attention was shifted to “environment and development” and later switched to “environment for development”. The first Principle of Agenda 21 stated that humans deserve a healthy and productive life that co-exists with nature. In fact, development and environment have to go hand in hand. Therefore, the developments have to be sustainable for both humans and the environment.

Organisations fundamentally promote environmental performance so that global welfare is maintained along with their access to natural resources which is necessary for their operations, which will be denied if environmental deterioration lasts longer [2]. Organisations hence have to evolve and persuade shareholders to take part in pro-environmental behaviours [3].

Pro-environmental behaviours are defined as environmentally relevant “individual behaviours that contribute to environmental sustainability [4]. When an individual performs pro-environmental behaviour in relation to his or her job, it becomes employee green behaviour [5]. This green behaviour helps to break the stress of the employees. Since, employees have a critical role in developing their organisational culture [6], Organisations cannot perform environmentally responsible behaviours without the employees’ cooperation and involvement [7]. Therefore, employees play a crucial part to promote pro-environmental behaviour in their workplace.

Need and Scope

The IT industry is booming with huge revenue of 180 U.S. billion dollars in 2019 [8]. It contributed to 7.7 percent of our country’s GDP. IT-BPM sector witnessed a growth of 6.1 percent from last year [9]. Certainly, the IT industry is a boon to our country, economically.

On the other hand, the bane it causes to the environment and humans cannot be overlooked. A large amount of natural resources are depleted as well as an enormous amount of pollution is generated in the form of emissions and wastes, when the IT-related products and services are manufactured and produced [10]. Telecommunications equipment, security systems, computers, monitors, printers, mobile phones, and other electronic equipment consist of toxic metals like mercury, lead, along with valuable amounts of copper, gold and other materials [11]. The e-wastes release toxic substances into the environment in addition to the improper recycling and disposal of these wastes which create physical ailments like cancer, kidney problems, neurological problems, etc. These adverse effects caused, however, can be reduced by going green. It will potentially bring down the ecological footprint and protect the environment. Since there is a dearth of research on the demographic factors that facilitate pro-environmental behavior in the workplace of IT professionals, the present study exclusively focused on the demographic characteristics such as gender, sector, place of work and educational qualification.

II METHODOLOGY

2.1 Aim

The aim of the study was to understand the green behaviour of IT professionals through their demographic details.

2.2 Objectives

- To examine the green behaviour of IT professionals.
- To explore the green behaviour of IT professionals in relation to their socio-demographic details.

2.3 Hypotheses

H₁: There will be no significant difference in green behaviour of IT professionals based on gender.

H₂: Sector will not differentiate the green behaviour of IT professionals.

H₃: There will be no significant difference in green behaviour of IT professionals with respect to the place of work.

H₄: Green behaviour of IT professionals will not differ based on their educational qualification.

2.4 Tools

Employee Green Behaviour Scale developed by Jovita and Jayakumar [12] was used to assess EGB. It has 24-items rated on a five-point Likert scale viz. Always (5), Often (4), Sometimes (3), Rarely (2) and Never (1).

2.5 Sample

The sample was collected from IT firms of Ernakulum district, Kerala. Due to security issues, direct data collection from IT employees is difficult. Therefore, the researcher adopted the online survey method to collect

the data. Consent of HR managers was sought. A Google form was sent to them which they forwarded to their employees. A total of 211 IT professionals responded to the questionnaire.

2.6 Statistical Test

The data was analysed using SPSS 21.0 version. Descriptive statistics like Mean, SD was assessed. Kolmogorov-Smirnov Normality test was administered to check for a normally distributed data. Other inferential statistics used were t-test and ANOVA.

2.7 Normality and Homogeneity of variance

The score obtained from Kolmogorov- Smirnov normality test is 0.04 with a p-value greater than 0.05 which indicates that the data is normally distributed. Levene's test of homogeneity was used to test whether the groups compared have same variance. The F-value obtained from Levene's test of homogeneity for educational qualification is gender, sector, place of work and educational qualification is 0.05, 0.003, 0.19 and 1.86 respectively ($p > 0.05$). As the p-value is greater than 0.05, group variances are assumed to be equal.

III RESULTS AND DISCUSSION

Table 1

Gender difference in EGB among IT professionals

| Variable | Male | | Female | | t-value |
|--------------------------|-------|---------|--------|---------|--------------------|
| | Mean | (SD) | Mean | (SD) | |
| Employee Green Behaviour | 88.46 | (10.37) | 88.77 | (10.36) | 0.21 ^{NS} |

NS- Not significant at 0.05 level

Hypothesis 1 tested: There will be no significant difference in green behaviour of IT professionals based on gender is confirmed. No significant gender difference was observed in green behaviour among IT professionals.

IT firms encourage their employees to go green. For example, some of the ways in which TCS employees engage in green behaviour is by using energy-efficient LED lights, reducing consumption of paper, cycling to the office, preferring public transport system, promotes teleconferencing and video conferencing instead of face-to-face meeting [13]. IT firms like WIPRO go green in many ways. This firm favour natural ventilation and lighting. WIPRO has regular energy audits, life cycle analysis of equipments such as air conditioning, lifts and also energy-conscious usage of Building Management System (BMS) to optimise energy along with other green initiatives taken by the company [14]. Tech Mahindra goes green with the installation of occupancy sensors which automatically switch off the lights when nobody is occupying it. A green area consisting of plants, shrubs, and trees is maintained in the company as a part of the green initiative [15]. Therefore, irrespective of their gender, IT professionals are prompted to involve in pro-environmental behaviour especially by the top management. Further, reviews revealed no statistically significant gender differences in environmentally responsible behaviours [16], [17]. This data corresponds with findings obtained by Hines, Hungerford and Tomera [18] which suggests no difference between genders in environmentally responsible behaviour.

Table 2

Difference in EGB based on sector

| Variable | IT | | ITES | | t-value |
|--------------------------|-------|---------|-------|---------|---------|
| | Mean | (SD) | Mean | (SD) | |
| Employee Green Behaviour | 87.89 | (10.12) | 95.45 | (10.15) | 3.17* |

*Significant at 0.05 level

Hypothesis 2: Sector will not differentiate the green behaviour of IT professionals, is not confirmed. A significant difference in the green behaviour of IT professionals was pronounced based on the sector.

The result revealed that green behaviour is observed more among professionals working in ITES. IT professionals' deal with project-oriented services like IT consulting, system integration, customised application development, and management as well as IT outsourcing such as infrastructure outsourcing, application outsourcing and network infrastructure management. On the other hand, the ITES sector confines their employees' work to customer care, human resource management, finance and accounting, procurement and training [19]. Having one of the main job descriptions of ITES as human resource management, this sector is

mostly driven by customer preference. Therefore, they are aware of how to attract stakeholders and potential customers. Pro-environmental behaviours do help to bring in potential internal and external stakeholders. Delmas and Pekovic [20] mentioned that green practices in an organisation make it attractive as efficient and talented employees prefer to work in companies that are environmentally committed. The close association with the customers and their deep understanding of their customers' expectation would have prompted them to engage in pro-environmental behaviours.

Table 3
EGB scores based on place of work

| Variable | Urban | | Semi-Urban | | Rural | | F-value |
|--------------------------|-------|---------|------------|---------|-------|---------|--------------------|
| | Mean | (SD) | Mean | (SD) | Mean | (SD) | |
| Employee Green Behaviour | 89.13 | (12.13) | 87.31 | (10.08) | 84.76 | (10.22) | 1.34 ^{NS} |

NS- Not Significant at 0.05 level

Hypothesis 3 tested: There will be no significant difference in green behaviour of IT professionals with respect to their place of work, is confirmed. Based on the place of work, the green behaviour of IT professional does not vary significantly.

The non-significant difference in pro-environmental behaviour in workplace among IT professionals based on place of work may be due to the education they possess. IT professionals in the present study are either graduates or postgraduates. They are educated enough to comprehend the relevance of going green and their onus to mitigate the adverse effects caused by the IT industry. Even though a significant difference is not observed among rural, semi-urban, and urban employees, the mean score indicated that IT professionals from the urban area are more pro-environmental than rural and semi-urban areas. This may be perhaps because urban areas are more exposed to environmental degradation and pollution. The ill-effects of it are experienced by the employees on a daily basis as their organisation is located in an urban area where they spent nearly eight hours per day. As these individuals spend such a long time in the workplace, the surrounding environment affects their physical and mental health. Myriads of diseases and mental illness are prevalent in urban areas. Allergies, asthma, life style diseases like cardiovascular diseases, obesity, chronic obstructive pulmonary disease (COPD), cancer, and mental disorders such as mood disorders, anxiety disorders are common in urban areas [21]. Being aware of these risk factors results in the higher pro-environmental behaviour of IT professionals.

Table 4
EGB scores based on educational qualification

| Variable | Graduates | | Post-Graduates | | t-value |
|--------------------------|-----------|---------|----------------|--------|--------------------|
| | Mean | (SD) | Mean | (SD) | |
| Employee Green Behaviour | 88.10 | (10.80) | 89.28 | (9.71) | 0.82 ^{NS} |

NS- Not Significant at 0.05 level

Hypothesis 4 tested: Green behaviour of IT professionals will not differ based on their educational qualification, is confirmed. Green behaviour of IT professionals do not significantly vary based on educational qualification

Even though no significant difference was found between IT professionals with graduation and post-graduation, the mean score obtained from post-graduates are slightly higher than the graduates. They are perhaps better informed about environmental deterioration and its negative impacts caused to the environment. Comparing graduation and post-graduation, post-graduation provides a better understanding and more specialised knowledge. Through under-graduation, an individual acquires basic knowledge whereas post-graduation provides technical knowledge and deep insight into a particular domain. Post-graduation also helps to equip oneself with relevant and essential skills to pursue a career as it is more practical in nature. There are evidences that suggest that individuals with higher levels of education exhibit strong concern for the environment and are more inclined to environmentally responsible behaviours [18], [22], [23]. Other reviews also suggested that, the better educated individuals were the more concerned about the environment [24], [25], [26], [27].

IV LIMITATIONS

The researcher used solely self-report questionnaire to collect data. Therefore, social desirability bias can occur in the present study, meaning the participants may have had a tendency to respond in a socially desirable manner. All the participants in the sample hailed from a particular district in Kerala.

V CONCLUSION

Organisations are willing to do every bit to be on the top-notch. To this end, pro-environmental behaviour in the workplace does help the organisation to some extent. Employees are endowed with great potentials. Green initiatives and behaviours bring out the best in them. It helps the employees to relieve themselves from the work pressure and thus enhances their productivity.

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