

Factors Influencing Environmental Change in Whitefield Zone in Bengaluru: An Empirical Substantiation From Software Engineer's

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Abstract: *This paper conducts an empirical analysis of the factors affecting White Field software engineers' concern about the threat of climate change. While natural changes a vital impact, this scope is itself to a great extent a component of tip top signs and monetary variables. Climate extremes have no impact on total popular feeling. Declaration of logical data to people in general on environmental change has an insignificant impact. The suggestion would appear to be that data based science support has had just a minor impact on open concern, while administrative association by elites and backing bunches is basic in affecting environmental change concern.*

Keywords: *Environment changes, White field, Software Engineer's, Bengaluru*

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I. INTRODUCTION

Bengaluru is among the most successful cities in India and the developing world. Its population growth has been dramatic and it has generated vast amounts of wealth and prosperity. Bangalore's economic success reflects the ability of cities to connect smart people who then work together and learn from one another. But however the development path adopted by Bangalore is neither sustainable nor equitable. And it's leading to widespread degradation of environment. On the tip of the iceberg of environmental issues facing Bangalore today are impacts of climate change, water pollution and rapid unplanned urbanization. These are some of the pressing challenges that Bangalore is facing and that will hamper its rush for growth. Bangalore generates 2500 tonnes of solid waste every day, and this waste is often disposed of in a very unscientific manner. And this worsens the situation in the polluted garden city. Once upon a time, walkers in the famous Cubbon Park and LalBagh used to enjoy the fresh air during their walks. Today, a majority of them are forced to wear pollution masks during their morning and evening walks. Rapid industrialization and a surge in the number of vehicles have made Bangalore explode into metropolitan nightmare. Due to the unscientific disposal of waste, pollution levels have risen to unprecedented levels in Bangalore. Experts point out that apart from the industrial and vehicular pollution, the waste disposal management by hospitals too is in a pitiable condition.

The Karnataka State Pollution Control Board has found that several industries and hospitals do not have a proper solid waste management system. Statistics show that the ambient air quality in Bangalore is deteriorating rapidly. The amount of nitrogen oxides in the air is 34 micrograms per meter cubed of air, which is quite high. The amount of suspended particulate matter is 200 microns per meter cubed of air, also high. There are also 44 microns of Sulphur Dioxide per meter cubed of air, another high statistic.

Environmentalists and citizens fear that rampant felling could cost the city its 'green heritage' tag. Their fear is supported by heaps of logs of axed trees and tree stumps dotting roads across Bangalore. As many as 279 more trees will soon be axed down for 'Namma Metro' - the upcoming metro rail in central Bangalore, especially near the legislative assembly building Vidhana Soudha and Central College roads. In the past two to three years alone, Bangalore has lost around 50,000 trees, felled for developmental activities, states a report of the Environment Support Group (ESG). Also, not only has the city's green beauty been destroyed due to developmental works, but the loss of green cover is also harming the Karnataka capital's climate. Bangalore's weather is changing fast and is no more pleasant as it was earlier. If trees continue to be chopped off rapidly, the city's average temperature will rise by two-three degrees Celsius in the coming years.

Many of the lakes in the city have 'disappeared' along with their water-spreads due to the rapid and unbridled urbanization here, a study said. The study, published by city-based Institute for Social and

Economic Change (ISEC), paints a grim scenario with further worsening of the water-bodies if the State government fails to get its act together. The report also points out that there has been an increase in flooding. Reclamation of lakes for various developmental activities has resulted in the loss of inter-connectivity in Bangalore district, leading to higher instances of floods even during normal rainfall. Many lakes were encroached for illegal buildings (54%). Field surveys (during July-August 2007) show that nearly 66% of lakes are sewage fed, 14% surrounded by slums and 72% showed loss of catchment area. Lake catchments were used as dumping yards for either municipal solid waste or building debris.

II. MATERIALS AND METHODS

Carlos Larrinaga-González et al, (2001) to study environmental accounting in the dynamics of organizational change. They concluded that environmental accounting is being used to “negotiate the conception of the environment” by companies that have not significantly changed. In order to investigate whether Gray et al.’s model and conclusions apply to a different cultural context, they have conducted nine case studies in Spain. They found that Spanish organizations are not truly changing their conventional perception of the environment, even in those cases where generalized structural and organizational changes are taking place.

Idoya Ferrero-Ferrero et al (2015) the purpose of this paper is to analyse whether the onset of the financial crisis caused changes in the influence of top management team (TMT) on corporate results. The primary results reveal that the onset of the financial crisis stimulated those TMTs with large teams and a high frequency of meetings to improve corporate performance, without leading to a reduction in corporate risk taking. This study reveals that different environmental conditions call for different behaviour from TMTs to fulfill their responsibilities. This study also suggests changes in normative and voluntary guidelines for improving the quality of the TMT’s work.

MiikkaPalvalin, (2017) Measuring productivity in changing environment is a challenging task for most of the organizations. However, it is very important for managers to measure how the changes in work environment impact on knowledge work productivity. Smart WoW is proving to be a useful tool for this type of productivity measurement, and organizations are using it to make changes in the work environment. Smart WoW is useful for evaluating an organization’s current work environment and practices, as well as for measuring the effects of work environment changes. This study’s results also suggest Smart WoW would be useful for research by, for example, evaluating how dimensions affect each other

Rafael D’Almeida Martins and Leila da Costa Ferreira (2010) Environmental studies have developed slowly within social sciences in Latin America. This paper seeks to assess and systematize the contribution of social sciences in the research on the human dimensions of global environmental change (HDGEC) in the region outlining its state of the art and process of development. Although it is possible to identify an emergent body of the literature and scholarship in the region, the involvement of Latin American social science in the HDGEC research is still timid and tentative and not yet institutionalized. The evidence from this compilation has shown that this literature is fragmented bringing difficulties for the homogenization of criteria for analysis and assessment.

Rhys Rowland-Jones et al (2005) to evaluate current environmental management systems as indicators of the environmental performance of an organization. Currently, organisations implementing either BS EN ISO 14000:1996 or EMAS do not need to comment on overall environmental performance. Environmental management is viewed as the control of all human activities that have significant impact on the environment. Neither standard comments on the degree of control exercised, the approach taken, or the effectiveness of that control.

Roy Morledge and Frank Jackson (2001) Quantifiable data produced in a national report by the Environment Agency of England and Wales entitled Water Pollution Incidents in England and Wales 1997 and published by the Stationery Office in 1998, identifies over 3,723 substantiated pollution incidents across England and Wales in 1997. Within the generic sector classed as “Industry” the construction industry was the most frequent polluter responsible for 22 % of all substantiated water-related pollution incidents in that sector. The report also identified that a significant number (28 percent) of all substantiated pollution incidents across England and Wales are directly attributable to mineral-based fuels and oils, many of which are used extensively within the construction industry. This paper seeks to locate the possible causes and effects for some of that oil-based pollution, discusses the issues and identifies a unique and radical client-motivated solution within the UK to reduce and mitigate the undesirable impacts upon the environment. Evidence produced by the oil industry shows the enormous amount of one particularly aggressive pollutant hydraulic oil which remains annually, unaccounted for. Hydraulic oil is used in most tracked earthmoving machinery; the sort of machinery most closely associated with construction work carried out near to watercourses. Biodegradable hydraulic

oil is much more considerate to the environment, but is more expensive and not usually installed in new plant and machinery. The paper argues that on a life cycle basis the use of biodegradable oil is viable and feasible and that there are many external factors that make its usage desirable.

Steven B. Scyphers and Susannah B. Lerman (2014) Climate change is a global threat to social, economic, and environmental sustainability. In an increasingly urbanized world, homeowners play an important role in climate adaptation and environmental sustainability through decisions to landscape and manage their residential properties. Understanding how human-environment interactions are linked with a changing climate is especially relevant for coastal and desert cities in the United States, which are already experiencing visible impacts of climate change. In fact, many homeowners are already making decisions in response to environmental change, and these decisions will ultimately shape the future structure, function and sustainability of these critically important ecosystems. Considering the close relationship between biodiversity and the health and well-being of human societies, understanding how climate change and other social motivations affect the landscaping decisions of urban residents will be critical for predicting and enhancing sustainability in these social-ecological systems. Based on the reviews we have been formulated following objectives.

To examine and evaluate how changes in the atmosphere, for example, temperature, precipitation and run-potential to accomplish the environmental objectives, which are affected by long-run transport of air contamination. To enhance our comprehension of the hidden procedures keeping in mind the end goal to create solid gauges and situations for gaining ground towards the Environmental Objectives; enhance input information for existing models; and empower better reconciliation of models for the atmosphere, air and natural communities.

In this examination, we had been choose descriptive research design, attitude scale, simple random sampling as well as sample size had been determine 311 and location in Whitefield, Bengaluru of Software Engineers’.

III. RESULTS AND DISCUSSION

Table and Figure 1: Respondents Profile

| | | Frequency | Percentage |
|--------------|---------------|------------|------------|
| Gender | Male | 251 | 80.7 |
| | Female | 60 | 19.3 |
| Income/Year | <=3 to 4 Lakh | 122 | 39.2 |
| | 4 to 5 Lakh | 137 | 44.1 |
| | >5 Lakh | 52 | 16.7 |
| Education | <=UG | 121 | 38.9 |
| | PG | 136 | 43.7 |
| | >PG | 54 | 17.4 |
| Total | | 311 | 100 |

Source: Primary data

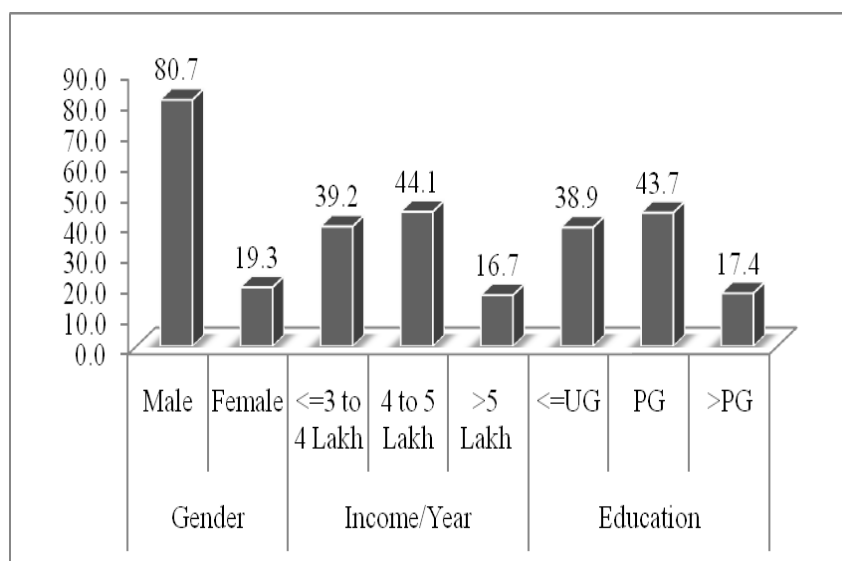
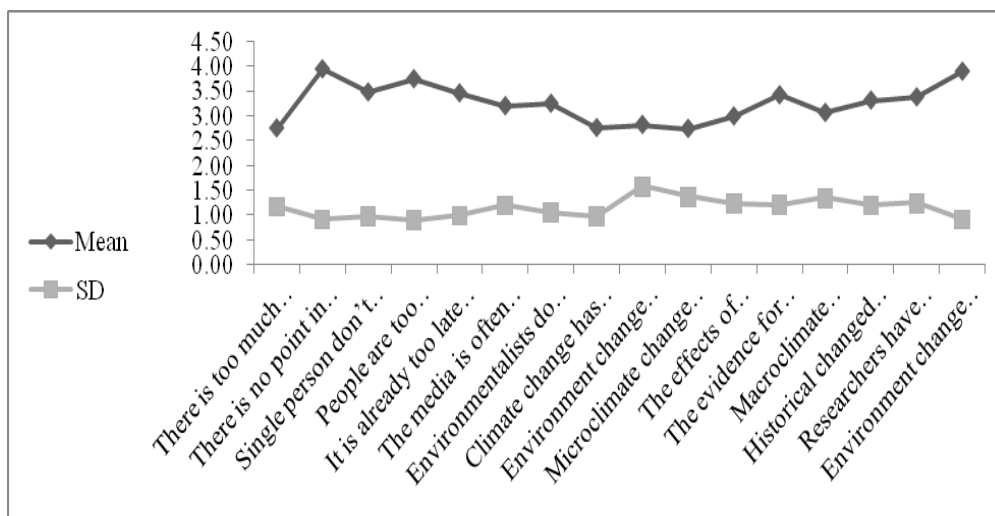


Table and Figure 2: Mean and SD of Factors Influencing in Environmental Changes

| | Mean | SD |
|---|------|------|
| There is too much conflicting evidence about environmental change | 2.75 | 1.18 |
| There is no point in me doing anything about environmental | 3.95 | 0.92 |
| Single person don't make any difference in tackling environmental change | 3.48 | 0.99 |
| People are too egotistic to do anything about macro environmental change | 3.75 | 0.90 |
| It is already too late to do anything about environment change | 3.46 | 1.00 |
| The media is often too alarmist about environment change | 3.20 | 1.20 |
| Do their best to emphasize the worst possible effects of environmental change | 3.25 | 1.07 |
| Environmental change has now become a bit of an outdated issue | 2.76 | 0.99 |
| Environment change is part of a pattern that has been going on for masses | 2.82 | 1.59 |
| Micro environmental change is just a natural changeability in Earth's | 2.74 | 1.37 |
| The effects of environmental change are likely to be catastrophic | 2.99 | 1.24 |
| The evidence for environmental change is erratic | 3.42 | 1.21 |
| Macro environmental change, and little agreement about which is right | 3.06 | 1.35 |
| Historical changed their results to make environmental change appear worse | 3.32 | 1.20 |
| Researchers have hidden research that shows environmental change | 3.38 | 1.25 |
| Environment change is so complicated, that there is very little politicians | 3.90 | 0.92 |

Source: Primary data



The table and graph 2 shows the mean score of each statement: The mean score statement of environmental changes from highest to lowest is presented cited above.

H₀₁: There is significant difference between Education Vs Environmental Changes factors

Table 3: F Test for Education Vs Environmental Changes factors

| | N | Mean | SD | F | Sig | |
|--|-------|------|------|------|-------|-------|
| There is too much conflicting evidence about environmental change | <=UG | 121 | 2.64 | 1.18 | 2.103 | 0.124 |
| | PG | 136 | 2.74 | 1.19 | | |
| | >PG | 54 | 3.04 | 1.13 | | |
| | Total | 311 | 2.75 | 1.18 | | |
| Environment change is part of a pattern that has been going on for masses of centuries | <=UG | 121 | 2.76 | 1.55 | 0.165 | 0.848 |
| | PG | 136 | 2.85 | 1.61 | | |
| | >PG | 54 | 2.89 | 1.61 | | |
| | Total | 311 | 2.82 | 1.59 | | |
| Micro environmental change is just a natural changeability in Earth's temperatures | <=UG | 121 | 2.64 | 1.38 | 0.715 | 0.49 |
| | PG | 136 | 2.78 | 1.38 | | |
| | >PG | 54 | 2.89 | 1.36 | | |
| | Total | 311 | 2.74 | 1.37 | | |
| The effects of environmental change are likely to be catastrophic | <=UG | 121 | 3.02 | 1.25 | 1.573 | 0.209 |
| | PG | 136 | 2.88 | 1.28 | | |
| | >PG | 54 | 3.22 | 1.13 | | |
| | Total | 311 | 2.99 | 1.24 | | |
| The evidence for environmental change is erratic | <=UG | 121 | 3.40 | 1.23 | 0.994 | 0.371 |
| | PG | 136 | 3.36 | 1.27 | | |
| | >PG | 54 | 3.63 | 0.98 | | |

| | | | | | | |
|---|-------|-----|------|------|-------|-------|
| | Total | 311 | 3.42 | 1.21 | | |
| Macro environmental change, and little agreement about which is right | <=UG | 121 | 2.98 | 1.41 | 1.897 | 0.152 |
| | PG | 136 | 3.01 | 1.29 | | |
| | >PG | 54 | 3.39 | 1.37 | | |
| | Total | 311 | 3.06 | 1.35 | | |
| Historical changed their results to make environmental change appear worse than it is | <=UG | 121 | 3.35 | 1.20 | 0.498 | 0.608 |
| | PG | 136 | 3.35 | 1.16 | | |
| | >PG | 54 | 3.17 | 1.30 | | |
| | Total | 311 | 3.32 | 1.20 | | |
| Researchers have hidden research that shows environmental change is not serious | <=UG | 121 | 3.35 | 1.31 | 0.964 | 0.383 |
| | PG | 136 | 3.32 | 1.28 | | |
| | >PG | 54 | 3.59 | 1.02 | | |
| | Total | 311 | 3.38 | 1.25 | | |
| Environment change is so complicated, that there is very little politicians can do about it | <=UG | 121 | 3.77 | 1.03 | 2.174 | 0.115 |
| | PG | 136 | 4.01 | 0.80 | | |
| | >PG | 54 | 3.91 | 0.92 | | |
| | Total | 311 | 3.90 | 0.92 | | |
| There is no point in me doing anything about environmental change because no-one else is | <=UG | 121 | 3.88 | 0.93 | 0.432 | 0.65 |
| | PG | 136 | 3.99 | 0.92 | | |
| | >PG | 54 | 3.98 | 0.92 | | |
| | Total | 311 | 3.95 | 0.92 | | |
| Single person don't make any difference in tackling environmental change | <=UG | 121 | 3.40 | 0.94 | 1.136 | 0.332 |
| | PG | 136 | 3.48 | 1.02 | | |
| | >PG | 54 | 3.65 | 0.99 | | |
| | Total | 311 | 3.48 | 0.99 | | |
| People are too egotistic to do anything about macro environmental change | <=UG | 121 | 3.62 | 0.99 | 2.455 | 0.088 |
| | PG | 136 | 3.87 | 0.81 | | |
| | >PG | 54 | 3.72 | 0.92 | | |
| | Total | 311 | 3.75 | 0.90 | | |
| It is already too late to do anything about environment change | <=UG | 121 | 3.39 | 0.99 | 0.539 | 0.584 |
| | PG | 136 | 3.49 | 1.03 | | |
| | >PG | 54 | 3.54 | 0.99 | | |
| | Total | 311 | 3.46 | 1.00 | | |
| The media is often too alarmist about environment change | <=UG | 121 | 3.11 | 1.20 | 0.716 | 0.489 |
| | PG | 136 | 3.29 | 1.20 | | |
| | >PG | 54 | 3.19 | 1.21 | | |
| | Total | 311 | 3.20 | 1.20 | | |
| Environmentalists do their best to emphasize the worst possible effects of environmental change | <=UG | 121 | 3.14 | 1.07 | 1.214 | 0.298 |
| | PG | 136 | 3.29 | 1.08 | | |
| | >PG | 54 | 3.39 | 1.00 | | |
| | Total | 311 | 3.25 | 1.07 | | |
| Environmental change has now become a bit of an outdated issue | <=UG | 121 | 2.82 | 1.00 | 1.074 | 0.363 |
| | PG | 136 | 2.67 | 0.99 | | |
| | >PG | 54 | 2.85 | 0.96 | | |
| | Total | 311 | 2.76 | 0.99 | | |

Source: Primary data

From the independent F-test analyses significant relationship is establish between education and environmental changes factors.

Findings and Conclusion

The main considerations that influence levels of programming engineers worry about natural change can be gathered into three ranges. In the first place, media scope of ecological change specifically influences the level of programming engineers concern. The suggestion would appear to be that a mass interchanges push to adjust the striking nature of the environmental change issue is probably not going to have much effect. A lot of center has been dedicated to the investigation and advancement of different correspondence methods to better pass on a comprehension of environmental change to singular individuals from the product engineers.

In any case, this investigation demonstrates that these endeavors have a minor impact, and are overshadowed by the impact of the partition on ecological issues in the political tip top. Moreover, the investigation has demonstrated that, in accordance with the media impacts writing, the impacts of correspondence on programming architects' assessment in regards to environmental change are brief. An abnormal state of programming engineers worry over environmental change was seen just amid a time of both elevated amounts of media scope and dynamic articulations about the issue's earnestness from political elites. It quickly declined when these two variables declined. In this way, if programming

engineers concern is to be managed under the current conditions, there is a requirement for nonstop programming designers' correspondences endeavors to keep up programming architects' help for environmental change activity despite restricting informing efforts.

Human populations differ in their defenselessness (or vulnerability) to certain wellbeing results. The helplessness of a populace relies upon elements, for example, populace thickness, level of financial improvement, sustenance accessibility, neighborhood ecological conditions, prior wellbeing status and the accessibility of open human services. It likewise relies upon different auxiliary and politically decided attributes. Versatile limit in wellbeing frameworks changes among nations also, financial gatherings. The poorest gatherings in the poorest nations have minimal capacity to adapt to environmental change. Poor populaces will be at most prominent wellbeing hazard from atmosphere change as a result of their absence of access to material and data assets and due to their regularly bring down normal levels of wellbeing and flexibility (wholesome furthermore, something else).

Long haul change in the soundness of devastated populaces will require pay redistribution, expanded work openings, better lodging and more grounded general wellbeing framework. Administrations with a coordinate effect on wellbeing, for example, essential care, infection control, sanitation and calamity readiness and help, likewise should be moved forward. Improvement plays a vital part in deciding the versatile limit of groups and countries; upgrading versatile limit is important to decrease weakness.

The lessening of financial defenselessness remains a best need. Usage of adjustment measures for the most part will have close term also as future advantages because of lessening in impacts related with current atmosphere fluctuation. What's more, adjustment measures can be coordinated with other wellbeing goals and projects. For instance, essential adjustment to environmental change can be encouraged by enhanced natural and wellbeing checking and observation frameworks. Essential lists of populace wellbeing status (e.g. future) are accessible for generally nations. Be that as it may, infection (dismalness) reconnaissance shifts broadly contingent upon territory and the particular sickness.

To screen infection rate or frequency (which may frequently give a touchy record of effect), ease information from essential care offices could be gathered in lookout population. There is a key requirement for investigate on hindrances and open doors for improving versatile limit keeping in mind the end goal to ensure human wellbeing, and in addition potential connections with continuous improvement activities and projects. Research likewise is required on the procedures of "adjustment basic leadership", including recognizing the parts and duties of people, groups, countries, organizations and the private segment in adjustment. Moreover, look into on the expenses and viability of self-ruling what's more, arranged adjustment measures is expected to help with assessing adjustment choices.

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