

The Impact of Work Environment on Job Satisfaction and Employee Performance: a Case Study of a Medical Center in Nigeria

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Abstract: In the modern era, organizations are facing several challenges due to the dynamic nature of the environment. One of the many challenges for a business is to satisfy its employees in order to cope up with the ever changing and evolving environment and to achieve success and remain in competition. In order to increase employee performance, effectiveness, productivity and job satisfaction of employees, the organization must satisfy the needs of its employees by providing good working conditions. This study has extended Herzberg two-factor theory focusing on work environment. The objective of this paper is to analyze the impact of work environment on job satisfaction and employee performance. The study employed a quantitative methodology. Data was collected through a self-administered survey questionnaire. The questionnaire is adopted from a previous validated survey. The study population is 362 which are staff from nine departments in a selected medical center in Owerri, Imo state, Nigeria. Yamane sample size method was employed to sample out 190 respondents from the total population. The study concludes that work environment has positive impact on job satisfaction and employee performance. Job satisfaction also has positively impacted on employee performance. Hence, it is essential for an organization to motivate her employees to work hard using Conducive work environment for achieving the organizational goals and objectives

Keywords: Work environment, Employee satisfaction, Employee performance, Task performance, Contextual performance

A Density Functional Investigation of the Push-Pull Effect in Some Poly-2,7',1',6''-[3]calicenes: Towards Novel Molecular Wires

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Abstract: We have been investigating polycalicenes because of their non-benzenoid aromatic nature and the diverse macromolecular structures that result from changing the bonding motif. The poly-2,7',1',6''-[N]calicene family, where N equals the number of calicene monomers, are especially interesting as they are linear and their electronic properties are easily tunable (one of the Grand Challenges of Material Science). These molecules are potential molecular wires and might have applications in sensors and organic solar cells. We studied the push-pull effect on the electronic properties of nine derivatives of poly-2,7',1',6''-[3]calicene 1. The electron donor (push) on the terminal three-membered ring was NH₂ and the electron acceptors (pull) on the terminal five-membered ring were BH₂, C≡N, NO₂, and F. All geometries, vibrational frequencies, and properties (dipoles, NMR, etc.) of molecules 1-10 are reported at the B3LYP/6-31+G(d,p) level of theory. Schleyer's nucleus independent chemical shift (NICS) criteria was used to evaluate the aromaticity of each molecule, a critical contributor to electronic properties. Calicene, benzene, cyclopentadienyl anion, and cyclopropenyl cation are reported as references. The Gaussian 16 suite of quantum mechanical programs was used for all calculations.

Keywords: Calicene, Polycalicene, Aromaticity, NICS, Push-Pull effect