

INNOVATION IN A WATER WELL POTABLE DRILLING MACHINE DESIGN ANALYSIS

RUFUS OGBUKA CHIME¹, CYPRIAN A. MGBACHI², JAMES IKEMUFUNA UDEH³ & ANICHEBE IFEANYI BENITUS

^{1,4}Institute of Management and Technology (IMT), Enugu, Nigeria ^{2,3}Enugu State University of Science and Technology (ESUT) Enugu, Nigeria

ABSTRACT

Creativity makes ideas and innovation exploits them. Good design bonds the two. Concept/ideals/markets influence it to become attractive and practical proposition for users or customers. Design is associated readily with industrial design product for manufacturing products. The presentation is much larger in design. For instance, sustainability, designing for function, aesthetic appeal; for ease of manufacture

The advance of wells for groundwater supplies in rural areas, particularly in developing countries, like Nigeria is of major concern; a narrow aquifer may prove to be sufficient in small communities, in such areas. These communities use their own initiative to acquire water for drinking, either surface water sources or groundwater sources. Water is fetched using buckets tied to ropes; unfortunately, human activities have poisoned the natural water sources, many are even drying up due to deforestation and underprivileged land husbandry, greatly reduced unless treated, high level of poverty makes water treatment virtually impossible. In respect of the above, it is essential to provide a means of exploring groundwater for rural dwellers since the surface water they rely on has been polluted by both industrial and domestic activities. Our research goal is to analyze, produce a low-cost, easy-to-use drilling machine, which will be used comfortably and effectively for rural dwellers.

KEYWORDS: Design; innovation; groundwater; analysis; portable drilling & sustainability

INTRODUCTION

The central factor of innovative humanization of technologies and the crucial factor of cultural besides economic exchange is known as design.

Design can include wide-ranging activities aimed at planning and designing procedures, technical specifications and other user and functional characteristics for current products and processes.

The recent financial catastrophe and economic hold-up have made the need to find complementary innovation drivers and models more acute and the external funding became difficult to obtain. It is noted that innovation came, not to discontinue R&D, but it should be encouraged as well as innovation activities that are close to shop and have low capital requirements. Existing expertise must be used in innovative ways to bring approaching innovation, incremental, or radical, produce and services that are healthier, adapted to user. Water, "The drop of life, as many fondly call it, can be an indispensable substance, since life is concerned."

Its many uses and applications, to mention a few, include generating electricity, agriculture, support of life, etc. In summary, without this substance, nothing in life would move. (Life water, 2004). The major challenge in providing