

A Customer Methodology for Developing Green Cellular Phone: A Case Study of University Malaysia Pahang Students

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Economic and environmental eco-design of mobile phones is considered as promising; however in customer marketplace it's still ineffectual. Inadequate eco-design of green mobile phones determines the lack of consumer voice and participation for product development and design in the marketplace. The main impediment is that, many organizations are asked to formulate and present their designs that support environmental green mobile phone characteristics and features but these organizations are not sufficient enough to recognize their voice in the planning and designing phase of product development. The research proposed in this paper fills the gap between wispy consumer perspective and designer's approach for developing green mobile phones. To research emphasizes on consumer-influenced criteria and features for green mobiles development by reflecting green mobile phone definition and uses quantitative approach as a tool of analysis performed to prove how customer participation can improve the overall green mobile phone design. The research is performed at University Malaysia Pahang where suggestions from different students and staff and other employees were statistically analyzed to prove that customer voice and involvement is really important and major factor for developing green eco-friendly mobile phones.

Green cell phone; Environmental eco-design; Customer voice

Introduction

Mobile phone development companies have been forced by the environment legislators to pertain environmental impact of production during their initial phase of mobile phone design [1]. The previous research suggests that process of mobile phone development clearly lacks in developing different approaches and paradigms for enamoring consumer voice in the planning stage of product design and development [2]. Mobile phone manufacturing companies fundamentally consider their own designs and hunch very less to consumer voice, which ponders their product less competitive, corresponds to non-environmental product [3]. The research shows that lack of environmental concern and apprehension in the planning stage of green mobile phone development reflects downward market demand, which is deficient in fulfilling the consumer requirements. Bereketli argued that, environmental product needs to meet the environmental legislation prerequisite in conjunction with the consideration of market demands [4].

The results collected from various studies related to mobile phone development undoubtedly mention that "consumer benefits and regulations

Green

- Cell phone designed from reusable and recycle materials

Collected data revealed that sustainability of green cellular phone should take into circumstances energy saving features, reusability, recyclability and consideration on minimal environmental pollution. Besides that "SPSS" statistical package for social science and as an initial step, the suitability of the data for factor is investigated. The KMO measure of sampling adequacy recorded 0.56, which is greater than the minimal satisfactory level value of 0.5, reflecting sample size is appropriate to analyze 9 variables. Furthermore, Chi square value of Bartlett's Test of Sphericity ($\chi^2(1) = 21.434$), indicates suitability of the inter-correlation matrix of 9 variables for factor analysis is significant. Finally, to evaluate reliability of questionnaire Cronbach's Alpha were practiced, where it was recorded with the value of 0.76, which confirms questionnaire is reliable; generally lowest acceptable required value of Cronbach's Alpha for evaluating reliability of questionnaire is 0.70.

Principal component analysis have been practiced which is totally grounded on assumption of components are extracted from variables

and explain 100% of the variation in the data. The rotation aims to clarify and simplify the data construct; hence, to understand interpretation clearly we have selected Varimax rotation method which is an orthogonal rotation method that minimize variable which reflects higher loading on factors; therefore, it simplifies the interpretation of the factors. Subsequently, Kaiser's criterion was practiced: eigen

Dominantly, organization practicing similar goals for energy conservation, minimizing resource consumption for their product and services of er. Results collected from survey shows resource efficiency recorded approximately 13.1% of the total variance. It has been

