

**FACTORS AFFECTING ENERGY CONSERVATION BEHAVIOUR OF  
STUDENTS IN MALAYSIAN UNIVERSITIES**

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For our children and their' children

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## ABSTRACT

This study focuses on promoting energy conservation using the behavioural approach. Globally, various energy issues such as the depletion of energy resources, degradation of the ecosystem, rise in energy prices, and increase in the world population, which lead to a higher energy demand, are causing a threat and leading to an unsustainable energy future. Among the immediate routes to minimize the adverse impacts of the energy threats and contribute to a sustainable energy future is the reduction of the energy consumption by promoting energy conservation behaviour. The scope of this study is Malaysian universities, which comprise thousands of building blocks equipped with massive facilities that consume a huge amount of energy. Three objectives to be achieved were established. The first objective is to propose key determinants and social marketing mix strategies to promote energy conservation behaviour. This is followed by the second objective of examining the causal relationship of the identified key determinants of energy conservation behaviour and the third objective of investigating the preferred combination of social marketing mix strategies to promote energy conservation behaviour. The first objective is achieved through the synthesis of theories and concepts in the literature review. For objective two and objective three, a questionnaire survey was conducted among students in five selected universities in Malaysia, which involved 2,000 respondents. The data collected for the second objective are analysed using structural equation modelling and the third objective is achieved using conjoint analysis. Three key determinants were found significant to predict energy conservation behaviour that are attitude, subjective norm, and perceived behavioural control. Choice-based conjoint analysis identified a mix of five social marketing strategies to promote energy conservation behaviour that are product, price, place, promotion, and post-purchase maintenance.

## ABSTRAK

Kajian ini menumpu kepada menggalakkan penjimatan tenaga dengan menggunakan pendekatan tingkah laku. Di peringkat global, pelbagai isu tenaga seperti kehabisan sumber tenaga, kerosakan ekosistem, kenaikan harga tenaga, dan peningkatan populasi dunia, membawa kepada permintaan tenaga yang lebih tinggi, menyebabkan ancaman dan membawa kepada masa depan tenaga yang tidak lestari. Antara laluan segera untuk meminimumkan kesan buruk daripada ancaman tenaga dan menyumbang kepada masa depan tenaga yang mampan adalah pengurangan penggunaan tenaga dengan mempromosikan tingkah laku penjimatan tenaga. Skop kajian ini adalah universiti Malaysia, yang terdiri daripada beribu-ribu blok bangunan yang dilengkapi dengan kemudahan yang mengguna jumlah tenaga yang besar. Tiga objektif untuk dicapai telah ditetapkan. Objektif pertama adalah mencadangkan penentu-penentu utama dan strategi campuran pemasaran sosial untuk mempromosikan tingkah laku penjimatan tenaga. Ini diikuti dengan objektif kedua menguji hubungan sebab dan akibat penentu-penentu utama tingkah laku penjimatan tenaga yang dikenal pasti dan objektif ketiga untuk mengkaji kombinasi pilihan strategi campuran pemasaran sosial untuk menggalakkan tingkah laku penjimatan tenaga. Objektif pertama dicapai melalui sintesis teori dan konsep dalam kajian literatur. Bagi objektif dua dan objektif tiga, soal selidik telah dijalankan di kalangan lima buah universiti terpilih di Malaysia, yang melibatkan 2,000 responden. Data yang dikumpul untuk objektif kedua dianalisis menggunakan pemodelan persamaan struktur dan objektif ketiga dicapai dengan menggunakan analisis konjoin. Tiga penentu utama telah dikenalpasti berkesan untuk meramalkan tingkah laku penjimatan tenaga iaitu sikap, norma subjektif, dan persepsi kawalan tingkah laku. Analisis konjoin berdasar pilihan mengenalpasti lima strategi campuran pemasaran sosial untuk menggalakkan penjimatan tenaga iaitu produk, harga, tempat, promosi, dan penyelenggaraan selepas pembelian.