

## ABSTRACT

Global warming and continuing oil price increases have become the appalling issues of the present day. These threatening crises are generally followed by arduous activity throughout the world, particularly in searching for alternative fuels with pollution-free properties. Thailand is at least fortunate enough to have such an alternative fuel as NGV (Natural Gas for Vehicles) officially launched by PTT Company Ltd. This study aims to look into the prospects of how NGV could gain more popularity, or more consumers, throughout the country.

The results of the study suggest that consumer's behavioral intentions toward NGV are affected by factors pertaining to social influences and NGV attributes. Each group contains several variables and is used in verifying its individual impact on consumer's behavioral intention; whereas the geographic locations, demographic factors and vehicle factors are taken into consideration for pin-pointing the main target. Analysis of Variance, Independent Sample T-Test, and Pearson Correlation Coefficient were statistical tools employed for interpreting and analyzing the significant relationships. Non-probability sampling was the main technique used on a quota and a convenience basis.

A survey of 500 potential consumers, comprising 100 respondents in each of the five separate regions, identified relevant geographic locations, demographic factors and their impact on behavior intention, while the differences in vehicle factors did not strongly affect the behavior intention. Moreover, the results of hypotheses testing show that the three highest ranks of significant factors inducing the consumers to use NGV are product attributes (product performance, product safety and appearance), and it is further noted that most of the product attribute factors, as compared to social influence factors, have high correlations with the behavior intention. Hence, PTT should expand the operations of additional refueling facilities throughout the country to assure the NGV users' convenience, and concentrate on the factors that influence the decision to use NGV by the target consumers. This implies that PTT should concentrate on the product itself in order to be successful in increasing the number of NGV users.