**CIVIC HYBRID MODEL: ANALYSIS OF PERFORMANCE THROUGH DOE**

 The Civic Hybrid Model was intended to continuously meet the growing needs

and demands of buyers for a car that could provide the highest and dependable quality

of performance.

 The model emphasizes a marketing proposition that is, “a model that is efficiency

empowered” that may connote dependable performance that goes with efficiency and

economy. The full product/model offer which the company calls it a combo, consists of:

1. [Integrated Motor Assist IMA®](http://automobiles.honda.com/civic-hybrid/features.aspx?Feature=ima)
2. [1.5-liter, 8-valve, SOHC i-VTEC® engine](http://automobiles.honda.com/civic-hybrid/features.aspx?Feature=vtec)
3. [Electric Motor](http://automobiles.honda.com/civic-hybrid/features.aspx?Feature=em)
4. [Continuously Variable Transmission (CVT)](http://automobiles.honda.com/civic-hybrid/features.aspx?Feature=cvt)
5. [Drive-by-Wire™ Throttle System](http://automobiles.honda.com/civic-hybrid/features.aspx?Feature=dbw)

(<http://automobiles.honda.com/civic-hybrid/performance.aspx>)

Statement of the Problem

 The study intends to determine the effectiveness of the model in terms of the

interactions of the composite elements, specifically in meeting the standards of quality

performance.

 The following research questions will be answered:

1. What level of performance will result from the individual effectiveness and efficiency of the elements comprising the hybrid model?
2. What level of performance will result from the interactions among the composite elements?
3. Are there differences in the actual performance resulting from the interactions of the parts and the standards of quality performance?
4. What modifications in each of the elements of the hybrid model may be made to further improve its overall performance?

Methodology

 Considering the complexity of the Hybrid Model, a full factorial design will be

utilized. Full factorial designs combine all the defined elements of the hybrid model and

its corresponding design variables.

 Full factorial design will be appropriate because the assessment that will be

made needs to be balanced, with every level of the design variables studied in several

combinations.

 Full factorial design includes enough experiment that would evaluate the results

of interactions of the composite elements of the Hybrid Model. Hence, it is a very

effective design on studies regarding effects and interactions.

 According to Zikmund (2003), factorial experimental designs are more

sophisticated than basic experimental designs. They allow for investigation of the

interaction of two or more independent variables.

 Basically, the following steps will be utilized in data collection:

1. Obtain historical and current data. This would be based on company documents and experiences of clients and other stakeholders.
2. Run specific experiments by manipulating some aspects in the elements of the model being studied.
3. Design experiments in a systematic and mathematical manner.

 **REFERENCES:**

Zikmund, William G. (2003). Business Research Methods. South-Western

 Thomson Learning.

(<http://automobiles.honda.com/civic-hybrid/performance.aspx>)

http://www.camo.com/rt/Resources/design\_of\_experiment.html