

Integrating Fuzzy Linguistic, Kano model and Decision Making Trial and Evaluation Laboratory to enhance Order-Winner criteria: A case study

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Abstract

Due to professional services come of age, manufacturers purchase most non-critical accessory products to fill the gap. It is necessary to conduct limited resources in an enterprise efficiently to become order-winners and qualifiers in competitive market. A guideline which is order-winners and qualifiers can meet the overall benefit of the business in considering of decision-making. However, further skilled the relationship between the order-winning criteria and benefit assessment of improving the criteria will assist business managers having understanding the need market as well as learning manufacturing develop strategy. This study integrates Kano Two Dimensional Model and the model- Order-winners and Qualifiers proposed by Terry Hill(2000) on the purpose to give decision-making based on customer's view. Therefore, this study is focus on the quality attribute of order-winning criteria and then to apply decision making trial and evaluation laboratory (DEMATEL) in order to analyze the causality and the level of interference. As a result, it is to find out the core element of order-winning criteria. In the previous work of questionnaire design, most questionnaire conduct Likert Scale. However, human feeling can not be divided. Scale can not express the human mentality as well as ambiguity and uncertainty of human feeling. Therefore, this study conduct Fuzzy Interval Linguistic Variables to express human mentality and ambiguity and uncertainty of

feeling. In addition, it will also develop fuzzy Dematel measurement instrument to know the links between order criteria. At last, the case study of this research is the bicycle brake system business in Taiwan. It is an empirical analysis to test the advanced model of order-winners and qualifiers on the purpose to structure a model as reference of marketing and manufacturing strategy of order-winning. The result of the study showed that the integration concept of Kano two-dimensional model and fuzzy Dematel has actual help in assisting managers to advance order-winners and qualifiers. The relevant researches through this study and its practical implications shows as following. Bovenkant formulier.

Keyword : Fuzzy Interval Linguistic Variables; Kano Two Dimensional Quality Model; Decision Making