

An Integrated Model of Value Creation Based on the Refined Kano's Model and the Blue Ocean Strategy

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Abstract. It is not sufficient for a contemporary firm to satisfy its customers; to be really successful, a firm must create value for its customers. In so doing, it will also derive value from its customers. In this regard, the present study first redefines the categories of customer value by suggesting a new category of 'creative value'. The paper then explores the concepts inherent in the refined Kano's model and the actions associated with the 'blue ocean' strategy. Using these concepts, the study presents an integrated model of 'value creation' and explains how this model can be used to select appropriate practical actions to enhance customer value, and by implication, also enhance customer retention. A case study is presented to illustrate the ease of application of the model in practice.

Keywords: customer value, value of customer, refined Kano's model, blue ocean strategy, creative value

I. Introduction

The close relationship between customer satisfaction and customer loyalty has been confirmed by many studies. In turn, increased customer loyalty is associated with an enhanced intention of future purchases. Customer loyalty and retention are becoming more important to the achievement of enhanced business performance.

It would seem that customers are becoming increasingly demanding in their requirements, and that they are therefore searching for suppliers who are continuously improving their supply of quality products and their provision of excellent service. Woodruff (1997) described this purchasing behaviour as a search for 'customer-perceived value'. In seeking such value, customers desire products and services that possess the attributes and performance that will facilitate the customers' achieving their purposes in using the product or service.

Research on customer-perceived value rests upon the presumption that customers want to maximize the perceived benefits and minimize the perceived sacrifices (Lindgreen and Wynstra, 2005). In discussing the related concepts of 'customer-perceived value' (from the perspective of the customer) and the 'value of a customer' (from the perspective of the firm), it is important to appreciate that the financial value of customers is an output of the overall value-creating process. It therefore follows that the aim of a supplier in providing value to customers is to gain financial value from those customers.

II. Categories of 'customer value'

In essence, the term 'value' can be said to imply a judgment of preference on the basis of certain criteria as assessed during an interactive, relativistic experience. Such an interactive, relativistic experience means that 'value' resides in a trade-off between the perceived benefits and the perceived sacrifices that are associated with a given good or service (Lindgreen & Wynstra, 2005). According to Browning (2002), such 'customer value' depends on: (i) the intrinsic value of the product (or service) in terms of how well its attributes address customer needs; and (ii) any variation in the product's value as a result of the existence of competing or alternative solutions to customer needs. Understanding 'customer value' in these terms enables a firm to design effective marketing programs (Gupta & Lehmann, 2005). Such programs recognize that a product can provide: (i) *economic value*; (ii) *functional value*; or (iii) *psychological value*.

It is the contention of the present study that these three types of value, although useful, do not exhaust all potential sources of value to customers. As Hamel & Getz (2004) have argued, the basis of any competitive advantage can be changed by radical ideas and innovations, and the present paper therefore contends that radical innovation can result in another kind of customer value—'creative value'. The present defines 'creative value' (or the value created by radical innovation) as the value of a 'breakthrough' new product that is designed as a result of radical ideas or sophisticated concepts.

The relationships among the four types of 'value' described here—'economic value', 'functional value', 'psychological value', and 'creative value'. In terms of the concepts of value already presented in this paper, it is apparent that 'economic value' and 'psychological value' will directly affect the constructs of 'customer retention', 'customer acquisition', and 'customer margin'; 'functional value' and 'creative value' will affect 'customer retention' and 'customer acquisition' directly, and have an indirect effect on 'customer margin'.

III. Refined Kano's model and 'blue ocean' strategy

Kano et al. (1984) proposed a model with two aspects of any given quality attribute require assessment—an objective aspect as to whether a given quality attribute is fulfilled, and a subjective aspect of the customers' perception of satisfaction. Using this model, quality attributes can be identified in five categories:

- *attractive quality attributes*
- *one-dimensional quality attributes*
- *must-be quality attributes*
- *indifferent quality attributes*
- *reverse quality attributes.*

The weakness of the model is a failure to consider the degree of *importance* of various attributes. In response to this problem, Yang (2005) refined Kano’s model by taking account of the degree of importance of attributes as perceived by customers. The refined model effectively subdivided each of Kano’s first four categories--thus making a total of eight categories as follows:

- *highly attractive quality attributes* (*‘attractive’ quality attributes of high importance*): strategic attribute offerings that represent effective means of attracting potential customers.
- *less attractive quality attributes* (*‘attractive’ quality attributes of little importance*): because these quality attributes have little attraction to customers, they can be reduced if cost considerations demand this.
- *high value-added quality attributes* (*‘one-dimensional’ quality attributes of high importance*): attributes that make a significant contribution to customers’ satisfaction and can therefore lead to increase revenue.
- *low value-added quality attributes* (*‘one-dimensional’ quality attributes of little importance*): attributes that make a limited contribution to customer satisfaction.
- *critical quality attributes* (*‘must-be’ quality attributes of high importance*): attributes that are critical to customers; firms must provide sufficient fulfilment of these attributes to customers.
- *necessary quality attributes* (*‘must-be’ quality attributes of little importance*): firms can meet these at a level sufficient to avoid dissatisfying customers.
- *potential quality attributes* (*‘indifferent’ quality attributes of high importance*): although few in number, these attributes will gradually become attractive attributes.
- *care-free quality attributes* (*‘indifferent’ quality attributes of little importance*): firms need not offer these attributes if cost considerations preclude this.

Kim and Mauborgne (2005a) utilized a four-action framework, which they referred to as the ‘eliminate-reduce-raise-create grid’ (see Figure 1).

Eliminate	Reduce
Those factors or elements that no longer have value or may even detract from value for customers.	Those attributes that have been over-designed in the race of competition, or those have little attraction of customers.
Raise	Create
Those attributes that can result in significant value for customers, or those that have high attraction to customers.	Those factors that can discover new sources of value for customers or those that can create new demand and attract noncustomers.

Figure 1: Eliminate-Reduce-Raise-Create Grid (Kim & Mauborgne, 2005a)

IV. Integration of refined Kano’s model and ‘blue ocean’ strategy

It will be apparent from the above discussion that the critical issue in applying the framework of the ‘blue ocean’ strategy is to identify the attributes that should be eliminated, reduced, raised, or created. It is the contention of the present study that integration of these categories of actions with the categories of attributes identified in the refined Kano’s model will facilitate such identification. The following integrated categories of attributes and actions are posited:

- *highly attractive attributes*: firms should raise these factors, and even create new highly attractive attributes to acquire non-customers;
- *less attractive attributes*: firms should maintain the existing level of these attributes, but fulfilment levels of these attributes can be reduced if required by cost considerations;
- *high value-added attributes*: the fulfilment levels of these attributes should be raised;
- *low value-added attributes*: firms can reduce the fulfilment levels of these attributes to reduce costs. but need to avoid reducing these attributes to a level that will cause customer dissatisfaction.
- *critical attributes*: these attributes are of great importance to customers, the fulfilment levels of these attributes should therefore be raised;
- *necessary attributes*: these attributes should therefore be maintained at existing levels; however, care should be taken to avoid reducing these attributes to a level that will cause customer dissatisfaction.
- *potential attributes*: firms should improve the fulfilment level of these attributes—because they do have potential to satisfy customers in the near future;
- *care-free attributes*: firms should eliminate these attributes in view of cost considerations;
- *reverse attributes*: firms should eliminate these attributes to avoid dissatisfying customers.

Figure 2 illustrates a model of ‘value of customer’ based on integration of the refined Kano’s model and the ‘blue ocean’ actions. The nine attributes noted above appear along the bottom-right of this diagram. The other three attributes, which are associated with new innovative products, are discussed later in this paper. As can be seen in the diagram, the effects on the various categories of ‘customer value’ are as follows:

- creating or raising ‘highly attractive’ attributes should contribute to both ‘psychological value’ and ‘creative value’;
- the maintenance of ‘less-attractive’ attributes will result in a small contribution to ‘creative value’, and reducing these attributes will have some positive effect on ‘economic value’;
- raising ‘high value-added’ attributes can contribute to both ‘psychological value’ and ‘functional value’; raising ‘critical’ attributes has similar effects;
- conditionally reducing ‘low value-added’ attributes can reduce costs (‘economic value’);
- reducing ‘necessary attributes’ is good for ‘economic value’, but might have negative impact on ‘functional value’; in contrast, raising ‘necessary’ attributes makes a small contribution to ‘functional value’, but will increase costs;
- improving the ‘potential’ attributes will affect ‘functional value’ in the near future, but the effect is not very significant; and
- eliminating the ‘care-free’ attributes and the ‘reverse’ attributes should contribute to ‘economic value’.

In the development of new products, there are three options to be considered by firms.

- *Improve the features of product:* this option matches the ‘raise’ action noted above, and has effects on ‘creative value’ and ‘functional value’.
- *Integrate critical features into a new product:* this strategy matches the ‘create’ action noted above, and will contribute to ‘psychological value’ and ‘creative value’ significantly.
- *Create innovative products:* To acquire new customers and non-customers by researching and developing an innovative product is the best initiative of the ‘create’ action of the ‘blue ocean’ strategy. This has significant effects on ‘psychological value’ and ‘creative value’.

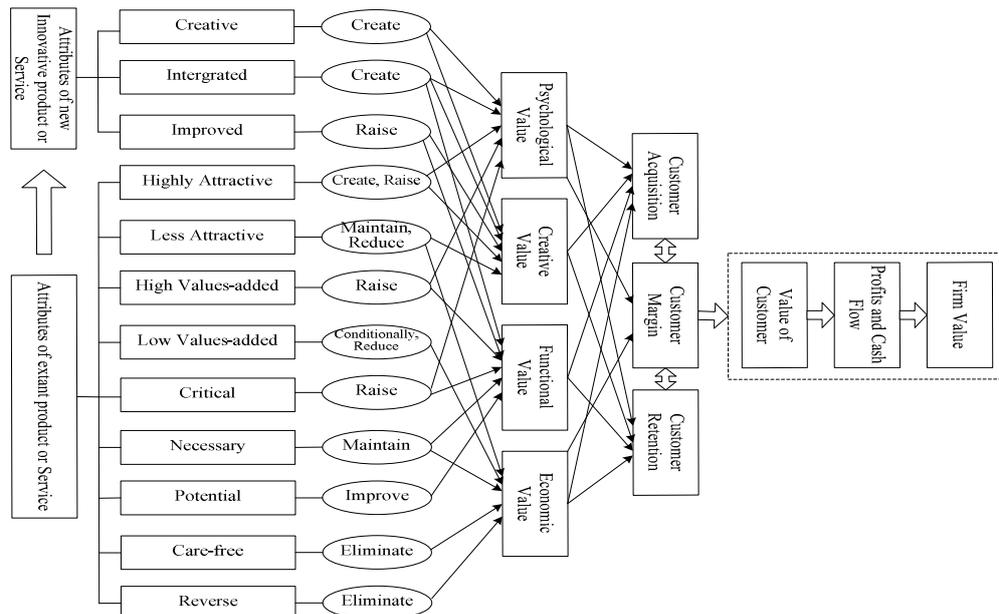


Figure 2: Model of ‘value of customer’ based on integration of refined Kano’s model and ‘blue ocean’ framework

V. Application of the model

The present author cooperated with a home-appliance manufacturer with regard to the development of an air-conditioner. As noted above, the refined Kano’s model incorporates consideration of *importance* of attributes into Kano’s original classification. Two kinds of questionnaires were conducted:

- the categorization of quality attributes according to Kano’s model; and
- the degree of importance of quality attributes (as assessed by customers).

Because the survey using the refined Kano’s model is based on the attributes of extant products, the attributes appearing in Figure 3 represent existing attributes (the last 17 items) provided by the home-appliance industry. For obvious reasons, the creative attributes of a new innovative product are not included. Nonetheless, the firm can create appropriate attributes for the new innovative product.

Daikin is a well-known manufacturer of air conditioners, and Daikin air-conditioners have demonstrated excellent performance features in recent years. One of the important factors in the company’s success is that it developed the core technologies and materials required to raise the fulfilment level of the ‘high value-added’ and ‘critical’ attributes—for example, reduced compressor noise, reduced outlet noise, and air-cleaning efficiency. Moreover, to reduce power usage, the firm also developed high value-added attributes as ‘reluctance DC compressor motor’ and the ‘inverter compressor power controller’. In addition, the following attributes and functions should be noted:

- *lot-set design*: integrated indoor units and outdoor units for customized demands (as an ‘integrated’ attribute);
- *anti-fungus function*: a ‘highly attractive’ attribute;
- *intelligent touch-control-web function*: a ‘creative’ attribute;
- *intelligent sensor to control temperature and reduce power usage*: a ‘high value-added’ attribute.
- *self-detection and automated display of broken parts*: this function can assist in undertaking repair work quickly and effectively; it is thus a ‘highly attractive’ attribute.

As previously explained, these attributes can all contribute to ‘creative value’, ‘psychological value’, and ‘functional value’, see the first five items in Figure 3.

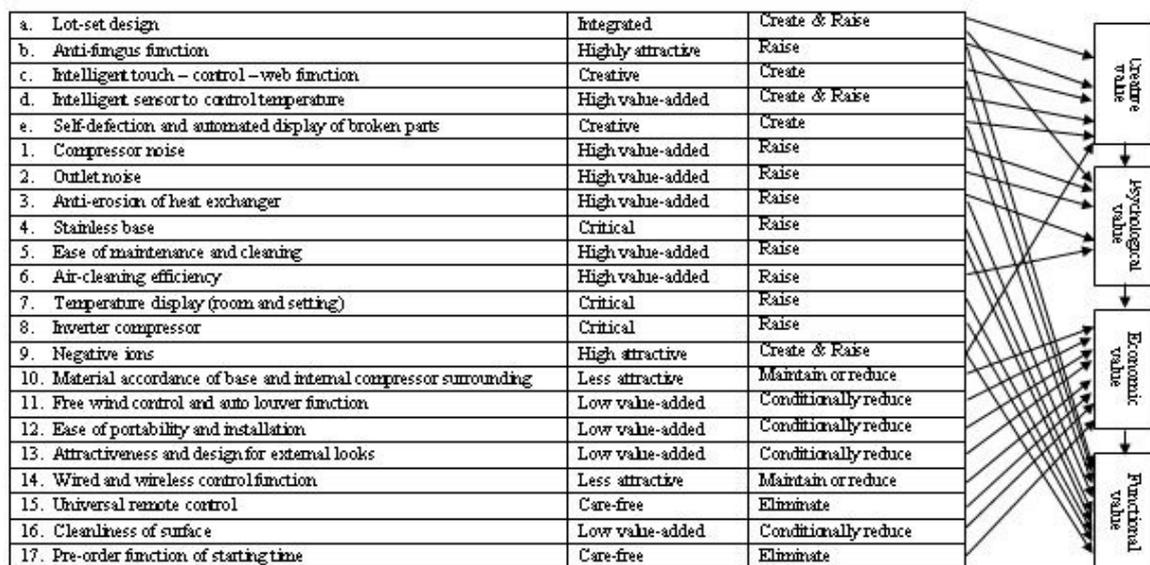


Figure 3: Air conditioner product: Results of refined Kano’s model and related actions and customer values

VI. Conclusion

It is not sufficient for a firm to satisfy its customers; to be really successful, a firm must create value for its customers. In so doing, it will also derive value *from* its customers. The pursuit of both value *for* customers and value *from* customers is thus a ‘win-win’ strategy. In this regard, the present study has developed an integrated model of value based on a combination of the refined Kano’s model (Yang, 2005) and the framework of actions associated with the ‘blue ocean’ strategy (Kim and Mauborgne, 2005a; 2005b). This integrated model can enable firms to navigate their way to a ‘win-win’ strategy.

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