



INTISARI

Aktivitas pengembangan produk memerlukan biaya yang tidak sedikit dan memiliki resiko kegagalan tinggi. Namun apabila mengelola aktivitas pengembangan produk dengan baik akan mampu meningkatkan produktivitas perusahaan dan meraih kesuksesan. Salah satu upaya pengelolaan pengembangan produk dengan strategi optimalisasi *success factor* yang berpotensi mempengaruhi tercapainya kesuksesan. Di sisi lain, fakta menunjukkan bahwa pengembangan produk yang melibatkan budaya mampu sukses di Indonesia maupun internasional. Hal tersebut juga didukung oleh hasil penelitian pendahulu yang mengkaji keterlibatan budaya pada pengembangan produk. Sejauh ini belum ditemukan model yang secara eksplisit merumuskan hubungan *success factor* terhadap kesuksesan produk dengan melibatkan budaya. Tujuan penelitian ini adalah membangun model matematika pengembangan produk sukses dengan mempertimbangkan budaya dan menentukan kontribusi budaya terhadap kesuksesan produk sekaligus memetakan budaya Indonesia.

Tahapan penelitian diawali dengan menentukan hubungan budaya terhadap kesuksesan produk dan mengkluster budaya berdasarkan data 805 responden masyarakat Indonesia. Tahap selanjutnya, menentukan variabel *success factor* dan membangun model matematis pengembangan produk menggunakan 304 data produk otomotif, *netbook*, *smartphone*, *souvenir*, dan jasa. Metode yang digunakan pada pengolahan budaya yaitu meta-analisis, perhitungan dimensi Hofstede, *Principal Componen Analysis*, *Agglomerative Hierarchical Cluster*. Penentuan variabel *success factor* menggunakan diagram afinitas, klasifikasi *success factor* dan meta-analisis. Sedangkan tahap membangun model matematika produk sukses menggunakan desain eksperimen dan Kano.

Hasil kajian meta-analisis budaya menunjukkan bahwa budaya berkorelasi positif dengan kesuksesan produk. Kluster budaya Indonesia berdasarkan dimensi Hofstede menunjukkan bahwa budaya Indonesia dapat dibedakan menjadi 4 (empat) kluster dan dibedakan menjadi 2 dimensi yakni *intrinsic characteristics* dan *environmental and future characteristics*. Variabel *success factor* yang digunakan untuk memprediksi kesuksesan berbagai produk meliputi harga, *product performance*, *brand*, *design aesthetics*, *services* dan *time to market*. Model matematika yang dihasilkan menunjukkan bahwa terdapat beberapa variabel *success factor* yang sebanding maupun berbanding terbalik dengan *market share*. Peningkatan *marketing/launching time* akan meningkatkan *market share*. Hasil model matematika Kano menunjukkan bahwa harga, *product performance*, *services*, dan *marketing* termasuk kategori *one-dimentional*. *Brand* termasuk kategori *must-be* dan *attractive*, sedangkan *design aesthetics* termasuk kategori *attractive*. Model yang mempertimbangkan budaya mampu meningkatkan nilai determinasi (R^2) dan termasuk kategori *one-dimentional* sehingga budaya secara eksplisit diinginkan oleh konsumen dan akan mampu meningkatkan *customer satisfaction*. Model tersebut diharapkan dapat dijadikan pedoman pengembangan produk untuk meningkatkan *market share* produk tersebut.

Kata kunci: produk sukses, *success factor*, budaya, model matematika, *market share*



ABSTRACT

The activities of product development need a not only small budget and it takes some risks of failure. But if it could be handled well, it would be able to increase companies' productivity by optimizing strategy of success factor which effects to success for sure. Furthermore, some facts show that product development which takes culture aspect could lead successful in Indonesia even more to international level. This is supported by some prior researches which studied the culture involvement on product development. So far, it has been found yet any model which explicitly states the relationship between success factor and product success by involving culture. So, this working paper has aims to build mathematical model of successful product development by considering culture and to decide the culture's contribution to product success (and at the same time to do Indonesian culture's mapping).

The first step of this research was started by deciding the relationship of culture to product success and by clustering the culture based on 805 Indonesian respondents. The next step was deciding success factor variable and was building the mathematical model of product development by using 304 data of automotive product, netbook, smartphone, souvenir and services. Furthermore, the research used some methods to manage culture such as meta-analysis, Hofstede dimension counting, Principal Component Analysis and Agglomerative Hierarchical Cluster. While on deciding the success factor variable, it was used such as affinity diagram, success factor classification and meta-analysis. In the step on building mathematical model of successful product, experiment designed and Kano were used.

The result of meta-analysis on culture showed that culture had positive correlation with product success. Based on Hofstede, the Indonesian cultural cluster dimension showed that Indonesian culture could be divided into four clusters and into two dimensions such as intrinsic characteristics and environmental and future characteristics. There are seven success factor variables were used to predict success on various products such as price, product performance, brand, design aesthetics, services and time to market. The resulted mathematical model showed that some success factor variables were having equivalent and non-equivalent with market share. The increasing of marketing/launching time will increase market share. While the result of Kano mathematical model showed that price, product performance, services and marketing were put into one-dimensional category. Brand was categorized into must-be and attractive, while design aesthetics was categorized into attractive. The model which considered culture was able to increase determination value (R^2) and it was included to one-dimensional category, so explicitly it was the most desired by the customers and was able to increase customer's satisfaction indeed. That model was expected to be a guidance on product development in increasing its product' market share.

Keyword: success product, success factor, culture, mathematical model, market share.