

ABSTRAK

Nama : Fadhilah Putri Sutiyan
NIM : 1217010031
Judul Skripsi : Uji Asumsi *Proportional Hazard* pada Model *Cox Proportional Hazard* untuk Analisis *Survival* Industri Pameran Tahunan di Indonesia

Industri pameran tahunan merupakan bagian penting dari sektor MICE (*Meeting, Incentive, Convention, and Exhibition*) yang berperan dalam mendukung pertumbuhan ekonomi dan pariwisata Indonesia. Namun, tidak semua pameran mampu bertahan dari waktu ke waktu. Penelitian ini bertujuan untuk menguji asumsi *Proportional Hazard* pada model *Cox Proportional Hazard* (CPH) serta mengidentifikasi faktor-faktor yang berpengaruh terhadap kelangsungan industri pameran tahunan di Indonesia. Data yang digunakan adalah data sekunder dari 74 pameran tahunan selama periode 2000–2019 yang diperoleh dari IECA (*Indonesian Exhibition Companies Association*) dan berbagai sumber terkait. Uji asumsi dilakukan menggunakan pendekatan grafis dengan *log-minus-log plot*, uji *Goodness-of-Fit* menggunakan residual *Schoenfeld*, dan uji *time-dependent variable*. Hasil analisis menunjukkan bahwa data memenuhi asumsi *Proportional Hazard*, sehingga model *Cox Proportional Hazard* dapat diterapkan secara valid. Dari pemodelan yang dilakukan, hanya variabel umur pameran yang terbukti berpengaruh signifikan terhadap keberlangsungan pameran. Hal ini kemungkinan disebabkan oleh keterbatasan data, mengingat data industri pameran masih belum tersedia secara luas dan terbuka. Temuan ini menunjukkan bahwa semakin lama usia suatu pameran, maka semakin tinggi peluangnya untuk tetap bertahan dari tahun ke tahun.

Kata Kunci: Analisis *Survival*, *Cox Proportional Hazard*, Uji Asumsi *Proportional Hazard*, Industri Pameran

ABSTRACT

Name : Fadhilah Putri Sutiyan
NIM : 1217010031
Title : *Testing the Proportional Hazard Assumption in the Cox Proportional Hazard Model for Survival Analysis of the Annual Exhibition Industry in Indonesia*

The annual exhibition industry plays a vital role in the MICE sector (Meetings, Incentives, Conventions, and Exhibitions), contributing significantly to Indonesia's economic and tourism development. However, not all exhibitions are able to sustain themselves over time. This study aims to test the Proportional Hazard assumption in the Cox Proportional Hazard (CPH) model and to identify the factors that influence the sustainability of annual exhibitions in Indonesia. The analysis is based on secondary data from 74 annual exhibitions held between 2000 and 2019, obtained from the Indonesian Exhibition Companies Association (IECA) and other relevant sources. The assumption was tested using graphical methods (log-minus-log plots), the Goodness-of-Fit test with Schoenfeld residuals, and time-dependent covariate testing. The results indicate that the data meets the Proportional Hazard assumption, validating the application of the CPH model. Among all the variables analyzed, only the age of the exhibition had a statistically significant effect on its sustainability. This may be due to limitations in the available data, as comprehensive information on the exhibition industry is still not publicly accessible. These findings suggest that the longer an exhibition has been established, the more likely it is to survive in subsequent years.

Keywords: *Survival Analysis, Cox Proportional Hazard, Proportional Hazard Assumption Test, Exhibition Industry*