

## INTISARI

Adanya perkembangan teknologi, terutama pada bidang transportasi mendorong adanya inovasi transportasi modern, salah satunya adalah *urban air mobility* (UAM). UAM adalah sebuah alat transportasi udara, dengan ketinggian penerbangan yang tidak setinggi pesawat konvensional lainnya, dan difungsikan terutama sebagai moda transportasi di daerah perkotaan sebagai solusi padatnya transportasi darat saat ini. UAM merupakan sebuah teknologi baru yang masih asing di telinga masyarakat, sehingga penelitian ini bertujuan untuk meneliti beberapa aspek yang berkaitan dengan keamanan dan penerimaan sebuah teknologi transportasi penerbangan baru tersebut dan pengaruhnya terhadap respon fisiologis maupun psikologis masyarakat.

Pada penelitian ini dilakukan simulasi UAM dilengkapi dengan variasi sistem navigasi tambahan yaitu HITS dan diberikan skenario *error* untuk membandingkan reaksi dari responden. Responden sebelumnya telah terbagi berdasarkan *risk attitude* yang diklasifikasikan dengan metode *Holt and Laury*, dimana setiap kelompok berjumlah 9 dengan total 3 kelompok *risk attitude*. Responden kemudian menonton video simulasi UAM sebanyak 3 kali dengan layar *interface* HITS yang berbeda, tetapi seluruhnya mendapatkan ketiga perlakuan skenario *error*. Aplikasi SPSS digunakan untuk mengolah data yang didapatkan pada penelitian ini.

Hasil penelitian menunjukkan bahwa faktor *risk attitude*, *interface* HITS dan keberadaan *error* tidak mempengaruhi SA secara langsung, namun interaksi tertentu dari faktor *interface* dan keberadaan *error* berpengaruh secara signifikan pada lama waktu jawab SA. Ketiga faktor tersebut juga diketahui tidak memiliki pengaruh yang signifikan pada kepercayaan responden terhadap UAM, baik secara langsung maupun secara interaksi antara ketiga faktor tersebut. Pada SCR, hanya ditemukan satu interaksi faktor yang signifikan mempengaruhi SCR responden, yakni antara faktor jenis *interface* dan *risk attitude*. Selanjutnya pada *dwelling time eye tracking* ditemukan bahwa faktor *risk attitude*, *interface* HITS dan keberadaan *error* mempengaruhi *dwelling time* responden pada 4 dari 5 titik yang diteliti, menunjukkan bahwa adanya pengaruh ketiga faktor tersebut secara langsung ataupun interaksinya terhadap *dwelling time* responden, walaupun tidak terdapat faktor maupun interaksi yang mempengaruhi *dwelling time* secara signifikan di keempat titik tersebut.

**Kata Kunci:** *urban air mobility*, *risk attitude*, *Highway-In-the Sky*, faktor keberadaan *error*, *eye tracking*, *dwelling time*, kepercayaan, *skin conductance response*, *galvanic skin response*.

## ABSTRACT

With the ever-advancing technological developments, especially in the field of transportation, encourages modern transportation innovations to take place, one of which is the urban air mobility (UAM). UAM is a means of air transportation, with a flight altitude that is not as high as other conventional aircraft, and is mainly functioned as a mode of transportation in urban areas as a solution to the current high density of land transportation. UAM is a new technology that is still foreign to the public's ears, so this study aims to examine several aspects related to the safety and acceptance of a new aviation transportation technology and its effect on the physiological and psychological responses of the community.

In this study, a UAM simulation was carried out while being equipped with an additional navigation system, namely HITS with various types and given an error scenario to compare the reactions of the respondents. Respondents had previously been grouped based on their risk attitude which were classified by the Holt and Laury method, where each group consisted of 9 people with a total of 3 risk attitude groups. Respondents then watched the UAM simulation video 3 times with different HITS interface screens for each of them, but each of them got to watch all three error scenario treatments. The SPSS application is used to process the data obtained in this study.

The results showed that the risk attitude, HITS interface and the presence of errors factors did not affect SA directly, but certain interactions of interface factor and the presence of errors factor significantly affected the respondents SA response time. The three factors mentioned are also shown to have no significant effect on respondents' trust in UAM, either directly or through the interaction between the three factors. In the SCR, only one factor interaction was found that significantly affected the respondent's SCR, namely the type of interface and risk attitude factor. Lastly, in eye tracking's dwelling time, it was found that the risk attitude, HITS interface and the presence of errors factors affected the dwelling time of the respondents at 4 of the 5 points studied, indicating that there was a direct influence of these three factors or their interaction on the respondent's dwelling time, although there were no factors or interactions between it that significantly affect dwelling time at every single one of these four points.

**Keyword :** urban air mobility, risk attitude, Highway-In-the Sky, error presence factor, eye tracking, dwelling time, trust, skin conductance response, galvanic skin respon