

**NORAIDA ABDUL GHANI**

Universiti Sains Malaysia, Malaysia

**ZULKARNAIN AHMAD HATTA**

Universiti Sains Malaysia, Malaysia

**INTAN HASHIMAH MOHD HASHIM**

Universiti Sains Malaysia, Malaysia

**JASNI SULONG**

Universiti Sains Malaysia, Malaysia

**NOR DIANA MOHD MAHUDIN**

International Islamic University Malaysia, Malaysia

**SHUKRAN ABD RAHMAN**

International Islamic University Malaysia, Malaysia

**ZARINA MAT SAAD**

Universiti Utara Malaysia, Malaysia

## **CROWD BEHAVIOUR IN A RITUAL BASED MASS GATHERING AND RELIABILITY OF SCALE MEASUREMENT**

### **Abstract:**

Hajj is an annual mass gathering of Muslim pilgrims in Mecca. The understanding of crowd behaviour during this ritual based mass gathering from the psychosocial perspective is inadequately highlighted in the literature. Based on the initial interviews with pilgrims, three main components of crowd behaviour were identified: observable crowd behaviour, emotion and cognitive. This paper reports on the subscales identified and the reliability of the questionnaires that were developed and pilot-tested to measure the three components. The subjects of the survey included 203 respondents during pre-Hajj training at three different locations in the country. Using explanatory factor analysis with principle axes factoring, 7 subscales of observable crowd behaviour components, 5 subscales of emotion components and 4 subscales of cognitive components were identified. Subscales of observable crowd behaviour included aggressive behaviour, coping behaviour, defensive behaviour, avoidance behaviour, protective behaviour, tolerant behaviour and hazardous behaviour. Subscales of emotion included positive emotion, negative emotion, positive comfortable emotion, negative comfortable emotion and positive spiritual emotion. The four subscales of cognitive included spiritual thoughts, negative thoughts of others, thoughts on Hajj Management and thoughts of safety. Using internal consistency method (Cronbach's alpha coefficient), all subscales have acceptable reliabilities except for protective, tolerant and hazardous behaviours. Majority of the subscales have spearman correlation values below 0.3 suggesting substantial independence of the subscales. The results of the study contribute to the enhancement of the dimensions of the behaviour of pilgrims in a ritual based crowd. However, further research is warranted with the scale in order to improve its reliability and to test its validity.

### **Keywords:**

Crowd behaviour, scale measurement, reliability, validity