

# E-BOOK OF EXTENDED ABSTRACT

## THE 14<sup>TH</sup> INTERNATIONAL INVENTION, INNOVATION & DESIGN COMPETITION 2025



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# EASY FASTEN CLOSURE FEATURES IN “SARONG SALIN” FOR WOMEN TO CHANGE OUTFIT FOR ECO-ADVENTURE ACTIVITIES

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## ABSTRACT

Eco-adventure is a trending recreational activity that has gained popularity recently as the world transitions into the post-pandemic phase. These activities are very relaxing and have become popular, especially in Malaysia. Waterfalls, beaches, and rivers are among the chosen locations, but unfortunately, there is a minimal changing area around them. Since getting involved in water activities will expose everyone to bacteria, there is a need for a multifunctional outfit. Utility outfits, also known as multifunctional outerwear, are essential for participating in ecotourism and eco-adventure activities. While most outerwear functions adapt to the temperature and surroundings, expanding it as a utility outfit is also important, especially for women who encounter issues with changing their clothes in outdoor settings. This study aims to create a utility outfit capable of accommodating clothing changes that align with fashion trends. For this particular study, the researcher will develop a "Sarong Salin" featuring an easy-fastening closure solution that allows women to change clothes easily during eco-adventure activities. This innovative design will not only provide convenience but also ensure that women feel stylish and confident while participating in various outdoor activities. By integrating fashionable elements with practical features, the "Sarong Salin" aims to redefine how women approach clothing changes in nature. This study involves a survey in which a questionnaire is developed and then distributed to the respondents. Prior to that, a pilot test on five different designs of Sarong Salin was also carried out, as part of the research methodology.

**Keyword:** Easy-fasten closures, “Sarong Salin”, women, changing outfits, recreational activities

## 1. INTRODUCTION

Living in the Southeast Asian region has its own attractions. Across the countries, people gain access to an array of national parks, rainforests, waterfalls and caves, many of which are open for discovery. Nature has been proven to alleviate depression, anxiety, stress, and frustration, as well as to improve overall psychological well-being. Not only that, the lush greenery has a positive impact on everyone, including invoking happiness and feeling fulfilled as a human. Outings and trekking in nature as a recreational experience is a major way that people around the world spend their leisure moments nowadays (Davidson 2011). In Malaysia, there are various reserved forests and waterfalls, which attract tons of local and international visitors. Additionally, various activities involve water and wet areas, which require people to also be prepared with extra clothes to change into afterward (Teoh, 2016).

However, in most public attractions, the main changing facilities in these places are not conducive as they fail to provide a comfortable room to do so: most of them lack privacy and are filled with trash (Mansor, Zakariya & Harun, 2019). Due to the limited changing rooms in most of these places, visitors have resorted to bringing an extra tent or using the sarong to cover their body as they change clothes. The use of Sarong in Malaysia is common as it can be interpreted as the most functional wear of traditional outfits. Sarong, usually known as 'Kain Pelikat' for men and 'Kain Batik' for women, has been the go-to outfit for many Malaysians, since before and up until this modern era (Legino, 2012).

There are many uses for a sarong, but particularly, a sarong can be used as an alternative to cover up the body while changing into another outfit. Women who frequent the recreational area at waterfalls, non-commercial beaches, and isolated camping sites will make use of the sarong to change their clothing after they are done with the activities. This is very useful to them, particularly Muslim women since they need extra privacy while changing their clothes. Muslim women are bound to certain rules and regulations when it comes to their clothing choice (Mustafa@Busu, Tasir & Mat Jusoh, 2018). While the use of a sarong has been regarded as functional as outerwear, it still can be improved. Therefore, there is a need to utilize the existence of the sarong as a utility outfit during eco-adventure activities.

## **2. METHODOLOGY**

This research employs a mixed-method approach to answer the research question and achieve the objectives. We must thoroughly investigate the various types of research objectives and questions. The qualitative research methodology is based on interviews, observations, and experiments that are conducted to appropriately categorize and classify the data. This research employs various methods, including visual analysis as the primary method, documentary analysis as the secondary method, and experimentation through a project-based approach that gathered potentially related studies from previously selected and currently selected topics. The quantitative research methodology relies on a survey through the distribution of questionnaires. In this method, the researcher can analyze unstructured data such as free-form survey responses. Using the AEIOU framework, the researcher will observe and record the activities of individuals in the selected environment. This analysis aims to understand the specific activities that individuals engage in relation to the topic, particularly outdoor recreation or ecotourism. Next, the researcher will analyze the research area's environment to understand its functions and characteristics. Thereafter, the researcher will observe the interactions between the objects and the person. Furthermore, the researcher will analyze the use of objects, specifically a utility outfit, within the context of the research. Last but not least, the researcher will view the actions of the user to understand their needs and preferences.

## **3. FINDINGS**

### **3.1 Online Survey Result**

This online survey received 100 responses from the anticipated 100 participants of the Instagram poll platform, selected based on their gender (female). The survey comprises inquiries regarding the outdoors and is closely aligned with the primary aims of the research. Female participants, predominantly Muslim women, were selected for the survey study. The poll results indicate that most respondents reported difficulty in changing their attire.

### **3.2 Pilot Test on Five Sarong Salin**

The researcher performed a pilot test on all five Sarong Salin designs to evaluate the suitability of the garment's features for changing garments and its applicability in outside environments. The statistics indicate that design 4 achieved the highest overall percentage, whereas idea 2 attained the lowest.



#### 4. CONCLUSION

The study aims to create a versatile utility outfit suitable for changing clothes during eco-adventure activities. The product will benefit everyone, specifically Muslim women who struggle with changing their clothes outdoors. Although certain outdoor areas provide basic facilities, they are still not secure enough and are very limited. Hence, this research will aid greatly in ensuring the security of changing clothes, especially for Muslim women. All in all, the researcher might have a more profound understanding of the value of having utility clothing that can be used to change clothes while participating in eco-adventure activities due to this research study. Additionally, the study will benefit not only Muslim women but also women and men who prefer to have privacy while changing clothes in the outdoor area. It can be a ground-breaking utility outfit for Muslim women who enjoy doing eco-adventure activities. The researcher advises future research to concentrate on improving the product's detailing and selecting the materials that work well for the different seasons, so that it can cater to fellow Muslimah women who live in other countries. Furthermore, it is also recommended that future researchers improve utility wear by using or combining lightweight and foldable materials so that it will be easier for everyone to bring it during their eco-adventure endeavour.

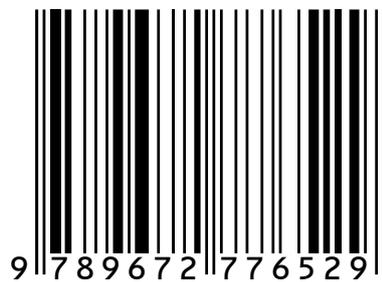
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