

**UNIVERSITI TEKNOLOGI MARA**

**AN INVESTIGATION OF *TENUN PAHANG DIRAJA* PERFORMANCE  
USING ALTERNATIVE YARNS**

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## ABSTRACT

An investigation on the properties of *Tenun Pahang Diraja* performances using alternative yarns was conducted. The studies were made in order to evaluate whether the *Tenun Pahang Diraja* could be produced economically and at the same time maintain the fabric quality. Traditional *Tenun Pahang Diraja* uses silk for both warp and weft. In this project, five (5) types of alternative yarns were selected to weave the fabrics which were modal (2<sup>nd</sup> generation rayon) and tencel (3<sup>rd</sup> generation rayon), bamboo yarn and coolmax yarn and polyester yarn. The reasons to use the yarns were due to the advantages offered and lower yarn cost compared to silk. These yarns were woven with two variations, one with the alternative yarns as weft while maintaining the silk warp and the other with both warp and weft using the alternative yarns. A total of 12 types of textile test procedures were done on the *Tenun Pahang Diraja* and two (2) tests on the yarns. The testing on the fabrics can be divided into four (4) properties with three (3) on fabric measurements, two (2) on strength properties, two (2) on surface properties and another three (3) on handle properties. These include yarn count, single yarn strength, fabric mass, thickness, thread density, abrasion, pilling, tearing strength, tensile strength, drapability, crease recovery angle and stiffness. Overall, it can be concluded that a blend of silk with other fibers such as silk/Coolmax<sup>®</sup>, silk/polyester and 100% of using alternatives yarns such as 100% bamboo, 100% modal yarns can be used as the alternatives to replace 100% silk *Tenun Pahang* fabric. These yarns are much cheaper than silk, which can reduce the total cost of *Tenun Pahang Diraja* fabric.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND OF STUDY

In Malaysia, *Tenun Pahang Diraja* seldom draws attraction if compared with *songket* and Batik fabrics. The young generation nowadays seems to be less interested in this kind of heritage. Normally, this art is appreciated by those who are really concerned with traditional costume and fashion (Abdullah & Zainal@Ismail, 2012). Figure 1.1 shows the example of *Tenun Pahang Diraja*. *Tenun Pahang Diraja* is one of the famous legacies that belong to Malay ethnics and it is also well-known for its beautiful arts that have motif, subject, color, methods and instruments. These features have made these arts to stand until today (Abdullah & Zainal@Ismail, 2012). Unfortunately, as time goes by, this art is forgotten and it is possible that one day this art will be gone. *Tenun Pahang Diraja* needs to be exposed and commercialized so that it can turn out to be one of the heritages that represent the Pahang state (Buang, 2001).

*Tenun Pahang Diraja* was believed to come from Sulawesi in 1669 which the port in the place named Makassar was invaded by the Dutch. This caused a migration of the local Bugis far from the country. In 1722 they finally landed in Pahang known then as Inderapura (Jamaludin, 2012). *Tenun Pahang Diraja* was introduced by one of the chiefs from Bugis named Keraing Aji and held a respected title of Tok Tuan. He introduced a hand-woven fabric woven on the Malay frame loom to the local folk in Pahang (Linehan, 1973). *Tenun Pahang Diraja* or originally called *Tenun Pahang* (Pahang Weaving) is a woven fabric consists of decorative tapestry, motifs and unique manufacturing techniques. This name is consistent with its high prestige and status because of the strong support given by the Pahang royal family, first by Her Royal Highness (HRH) Tengku Ampuan Meriam, and later extended by HRH Tengku Puan Pahang, Tunku Hajah Azizah. Tunku Hajah Azizah's concern on the heritage of *Tenun Pahang Diraja* has produced many new talents in the art of weaving with the opening of the Institusi *Tenun Pahang* Tengku Ampuan Afzan (Royal Weaving Institution of Pahang Tengku Ampuan Afzan) (Shahrin, 2010).