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**RELIABILITY OF VISUAL AND DIGITAL COLOR  
ASSESSMENT IN TEXTILES FOR INTIMATE APPAREL  
MANUFACTURING**

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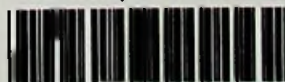
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## Dedication

*I lovingly dedicate this thesis to my parents and husband,  
who are supported and encourage me in  
every way during my studies.*

## Acknowledgement

I would like to take this opportunity to express my sincere thanks to those who encourage, assisted and guided me throughout in this research study. This thesis would not have been possible without their help and support.

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## Abstract

Expectations of apparel retailers in international are high quality apparel in low cost align with the fashion trend of the season in narrower lead time. With its aim, the buyers tend to defer buying decision to align with frequent changes in fashion trend and related colour aesthetic to maximize the retail while maintaining the lower inventory levels.

With this situation, the garment manufactures required to re-visit garment manufacturing process and implemented new manufacturing systems such as lean manufacturing practices and other operating systems to shorten the production life cycle.

Color approval process is one of the key activities and it is identified as nonproductive activity consume considerable time period in the total buying cycle. The objective of the study is to discover a methodology to eliminate color approval process and related timelines by implementing modern technology available. The research is carried out with a statistical analysis to find a numerical value which able to transform through the electronic media by replacing a visual judgment instantly to a decision maker. After a comprehensive literature review, the color difference (the symbol of DE) is identified as the numerical value to transform the decision of accepting the color, which is 0.806 for main raw material used for intimate apparels selected in this study. Further study is recommended to discover DE of various other components used in the industry enabling to eliminate the nonproductive timeline in the color approval process and reduce total buying cycle time.



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## List of Abbreviations

Abbreviation	Description
CIE	Commission Internationale d'Eclairage (International Commission on Illumination)
DE	Differential Equation
CIE	International Commission on Illumination
RGB	Red, Green, Blue



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