

Women's Handbag Innovation: Design, Comfort, and Safety Features

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The objective of this study is to determine the features of handbag design, comfort, and safety that should be applied in designing handbags for older women. The study design used quantitative surveys. A needs analysis has been carried out at shopping malls around Kuala Lumpur to get women's consumer views on the handbags to be produced. The questionnaires were distributed to 80 female respondents between the age of 41 and 60 years. The findings revealed respondents' views on the product prototype to be produced as well as design, comfort, and safety features that needed to be applied to the handbag. The handbags have been designed to feature simple, portable, flexible, durable, steel wires, not-so-smooth textures, easy-to-hold, and fit for women of all ages. The source of the inspiration for the handbags was from batik patchwork. In addition to the safety features, the product has an adjustable clip buckle that reduces the risk of fall injury if the handbag crosses the strap. There is a protective casing that comes with the handbag for extra safety measures. This study can be used by handbags manufacturers to focus on safety features in product improvements. Hence, it can produce a wide variety of innovative handbag products in the fashion world of Malaysia.

Key words: *Innovation, design, handbags, color, comfort, safety.*

Introduction

Handbags are one of the most complementary clothing accessories and one of the most popular accessories for women (Daniels, 2010; Lieya, 2015). Park (2014) and Kim and Lee (2005) state that the most valuable consumer items are purses and handbags. This is because these items are not changed daily, compared to changing clothes. In addition, an American woman is said to have at least three bags per year (Wang & Griskevicius, 2014), while Sohl and Saini (2014) state that working women need at least one purse. In addition, handbags are needed by women to house various accessories such as hairbrushes, make-up, mobile phones, car keys, and house keys (Sohl & Saini, 2014; Amirul, 2014; Daniels, 2010). Handbags are also among the obligatory accessories of women's style that symbolize the image and personality of the person who wears them (Daniels, 2010). Handbags also have different designs, sizes, brands, and materials (Ho, Huang, Huang, & Kao, 2012). The trend of wearing branded handbags has also influenced women to spend money to own the best handbags (Park, 2014). Therefore, it is not a surprise that most women have more than one collection of different handbags.

However, with the interest towards handbags is increasing, the cases of snatch theft are getting more common and it is very worrying. Snatch theft crime is often associated with valuables such as handbags targeted by criminals pursuing weak people such as women and the elderly as well as children who are wearing jewellery (Tarmize, 2015). Most cases of snatching occur in the age group of women around 25 to 65 years old. This is because they often carry a variety of valuables in their handbags. These groups are the ones who are unable to fight the snares. If the snatcher takes the handbags carried by the women of this age group, they would not be able to protect their bags by holding tightly to their bags. There have also been cases of victims who have held their handbags too tight, which causes them to be dragged by the motorcycle riders. Therefore, more features of handbags should be considered before buying them as this issue concerns women of all age groups. Most women choose a bag simply by considering the design, colour and shape. The security aspects are rarely considered and many of the handbags sold in the market do not contain any elements of security (Johanna, 2015). In addition, it is found that most of the manufacturers and distributors are only concerned about the design, shape, and colour that seems to be more appealing to bag enthusiasts. They are also less concerned with the quality in terms of materials used, except for the large and reputable companies that give attention more on the quality of the bags that they produce for example Gucci, Chanel, Prada and other large overseas companies (Zhan, 2012).

Therefore, research should be carried out regarding the innovation of handbag products including the design, accessories, materials, and safety features of the products for middle-aged women. This is because these groups do not have the energy to deal with the plight of snatch cases. Researchers have also found that the market lacks special handbags designed to have safety features for this group. These handbags are important to reduce the risk of injury and

life safety and are more secured in snatching cases for aging women (Delvie, 2013).

Therefore, the types of innovation for handbag design that are appropriate for older women emphasize comfort and safety features. These bags should be studied to reduce the problem of injury or death for older women. Comfort features need to be included in the innovative design of these handbags because the way a bag is used can affect women health. According to Bettany-Saltikov and Cole (2012), a backpack or a heavy shoulder bag can cause injury. Meanwhile, the study by Aprile et al., (2016) and Siambanes, Martinez, Butler, and Haider (2004) stated that women are more prone to back pain because of frequent heavy bag loading. In addition, women need to maintain their own safety as crime is very worrying (Rosdi & Ahmad, 2016). The criminals target consists of weak group of people like women and the elderly.

Therefore, this study is aimed at providing information to create new innovations in the manufacture of special handbags for women of the age around 25 to 65 years old to reduce the incidence of snatch cases. It is hoped that this study will help the researchers to gain the necessary information before producing a handbag that suits this age group. In addition, the study aims to identify the types of handbags choosing by women in the age around 25 to 65 years old, which that have safety features and gives them to wear handbags that suit their taste while maintaining the safety features at best state.

Design Features

Handbags are made with different shapes, designs, colours, and functions. No matter whether you are young or old, everyone will feel that their appearances will not be complete without a handbag. Perhaps because of this, there are different types of handbags with their own functionality and fit for a wide variety of events. Various types of bags are available in today's market such as *Hobo*, *Clutch*, *Satchel*, *Tote*, *Wristle* and more (Ariesma, 2015; Colley, Pakanen, Koskinen, Mikkonen & Häkkinen, 2016). There is various shape of handbags including round shape, rectangular shape, rectangular shape amongst many others (Harlina, 2011). In addition, handbags use a variety of materials including buttons, zips, velcro, and iron for bag hangers that are decorated with a variety of decorations. According to Dwi Ariyani (2013) various decorations are used for handbags such as embroidery and beads, rivets or metal nails, smocking, quilting, and patchworks (Dwi Ariyani, 2013). The decor can be some creative and innovative inspiration that can be customized with clothes, handbags, shoes and scarves (Hashim, 2009).

In today's market there are countless types and designs of the latest bags with interesting patterns, colours, and decorations. Normally, this type of bag is associated with women who are most interested in changing handbags (Sinar Harian, 2012). If you look everywhere around

the world, every woman will carry along their handbags wherever they go. Bags are very important for women as compared to men because women have a lot of necessities such as cosmetics and personal items to be with them at all times (Suziana, 2014).

Types of Fabrics and Colours

Handbags are made from different types of fabrics and one of the most popular fabrics used in the manufacture for handbags is leather. According to Kosmo (2015), leather material comes from the Northernmost city of Kano, while goat skins are from Northwestern city of Sokoto while snake skins are obtained from snake farms in the region. Leather handbags are more attractive compare to other materials. In addition, canvas-type fabrics are also commonly used as they are waterproof, sturdy, cheaper than leather-type fabrics, and can be used with casual wear or corporate wear. This canvas fabric is a strong and durable fabric which is suitable for a handbag. Canvas fabric is thick and very strong (Fitinline, 2013).

Nylon fabric is also known for its strength, elasticity, non-perishability, and its resistance to oil and fat. Nylon repels abrasion and does not shrink or stretch during washing. Nylon fabric has a low absorption rate. Therefore, this fabric is often used for swimwear, sports, and bridal wear. Nylon is very easy to absorb over time if washed together with other coloured textiles.

The design of the handbags is made up of various shapes such as the holder design between having two straps that can be rotated behind, short straps can be clamped or folded and have long straps (Felisbag, 2014). A bag that is placed on the shoulder with the maximum load that can cause stress and tension on the spinal structure and may indirectly cause postural scoliosis (Aprile et al, 2016; Siambanes, Martinez, Butler & Haider, 2004). The choice of colour is also different because it is not just one colour that can influence the human psychology of bag selection. Although it may be a good product, if the colour selection does not match the product image, it may cause the product to lose its aesthetic value. As such, colour plays an important role in a product and can influence the consumer's interest even when consumers generally view a product based on its use. This is because handbags are used appropriately to attend events or activities. Furthermore, the handbags are worn according to the colour of the clothing worn by the wearer in either the opposite or the same colour (Shahrin, 2016). The choice of handbag colour also depends on the personality of the purchaser, some prefer colours like black, dark blue and brown to be more suitable to match with all colour. Meanwhile, others choose handbags in relation to the style of shoes, like a design of straps, velcro, rubber or buckle (Hanani, 2015).

Materials and Accessories

The manufacture of handbags requires appropriate materials matched to the design of the handbags. An example of materials for handbags include zips, velcro, tab buttons, straps, buttons, hooks and clips. The use of zip, velcro, hooks and clips on the handbags provides a latch on the handbag, as well as a safety measure to prevent the items being kept from getting out of the bag (Cassella, 2008). The zipper is usually placed on the surface of each pocket in the bag as a security function to keep the items away and to prevent items such as purses from being pulled out by thieves who clutch their pockets. In addition, the structures of the bag section also include buttons, hooks, safety pins which have a similar functions to a zip (Cantor, 1993). According to Blumenthal (2011) the selection of the right decoration is very important in order to have a positive effect on the manufacture of handbags such as embroidery, applique, smocking, quilting, and beads.

Types of Handbags

Handbags are made up of many different shapes, designs, colours, and functions. No matter whether you are young or old, everyone will feel that their appearances will be incomplete without a handbag. Perhaps because of this, there are different types of handbags with their own functionality to fulfil each customer's needs. Handbags come with a variety of functions and are decorated to suit all events (Pakanen, Lappalainen, Colley & Häkkinen, 2016). Innumerable types of bags are available in today's market such as Hobo, Clutch, Satchel, Tote, Wristle and more (Ariesma, 2015).

A satchel is a small handbag with a long strap and is generally worn around the shoulder. This type of handbag is ideal for teenagers as it is suitable for casual events (Fine, 2015). Satchel bags are handbags that have a box shape and surface covered with cloth or leather, and are usually rigid (Leibowitz, 2000). Usually, a woman who wears this satchel type of handbag is a woman of gentle temperament and good manners. However, this type of woman is very firm and diligent in all the work she does (Noraini, 2012).

A clutch-type handbags is a type of handbag that can be worn in a variety of fashion styles, but they are generally suitable for formal occasions. For formal occasions, this handbag is held in the hand. This type of handbag does not have a handle (Lieya, 2015). Large handbags, otherwise known as hobo type, are also worn by women. Typically, this type of handbag has two types of straps, which can be styled in two ways, either using long ropes, or in bearings using short ropes (Lieya, 2015). Tote handbags are usually handy and have openings at the top and are large enough to hold many items. This kind of bag model is widely used for carrying groceries or carrying equipment to the beach (Admin, 2013 & Suziana, 2013). Wristlet-type handbags have a beautiful, shiny design, and usually have opaque material, are small in size

and have a long chain-like strap. These bags are usually made from natural leather, but some are made of synthetic leather, and often used by women to attend formal or informal events (Felisbag, 2014). Bucket-type handbags are a type of women's handbags that have a cigar-shaped shape on the top of their bags. These bags usually do not have a zipper or lid, in order to close and lock them we only need to tighten the rope around the neck of the bag (Felisbag, 2014).

Comfort and Safety Features

Safety can be considered as a habit or a positive attitude. It will not be born on its own unless the human being who forms it considered it a priority (Nur Fazreen, 2013). Safety is always a concern when holding and traveling, and using a secure bags always should be a priority, including injury and risk, knowledge or skills in avoiding accidents or illnesses and quality or risk-free situations (Bahari, 2006). Safety is a lack of danger, a lack of space that helps create a sense of danger, a level of protection and a situation that does not involve risks (Holt, 2005). The previous research has shown that safety is an important aspect of our daily life. The researchers conclude that the production of innovative products produced in this study should have safety features.

Automatic Clip Buckles

Automatic clip buckles are usually found on school bags, pouch bags, or travel bags. The function of which is to tie or pack a bag strap (Hamilton, 2003). While studies by Chin-Min, Yue-Chi, Wang, and Ying-Li (2015) stated that simple handbag design does not require adjustments and will look more luxurious. In this study, researchers have proposed to use this automatic clip buckles as a safety element in the researcher's handbag innovation product. The design of this specially designed handbag has a wire cable in it that is designed to prevent bag theft. If a thief cuts the bag strap, the bag strap will be difficult to break due to the wire cable inside the bag strap (Gamman & Thorpe, 2006).

Cut-Proof Chain Link Body Construction

The use of Cut-Proof Chain Link Body Construction on the lining or body parts of the handbag will prevent the theft of the items inside the bag, if the bag is attacked with a knife, only the outer layer of the fabric will be torn. The knife cannot tear the lining of the existing iron net on the back of the bag. Moreover, the items in the bag will not fall out of the bag so all the baggage can be saved in the case of bag theft (Han & Koo, 2014).

Batik

Batik or *anyaman* can be illustrated as one elements of fresh, elegant and sophisticated (Mariatul, 2015; Maryati & Suparman, 2019). Batik painting uses a technique of retaining colour with repeated candles on the fabric. Candles are used as a deterrent to prevent the colour from absorbing into the fibre of the desired areas (Nurdalia, 2006). Batik represents a fresh, elegant and sophisticated elements of luxury design (Mariatul, 2015).

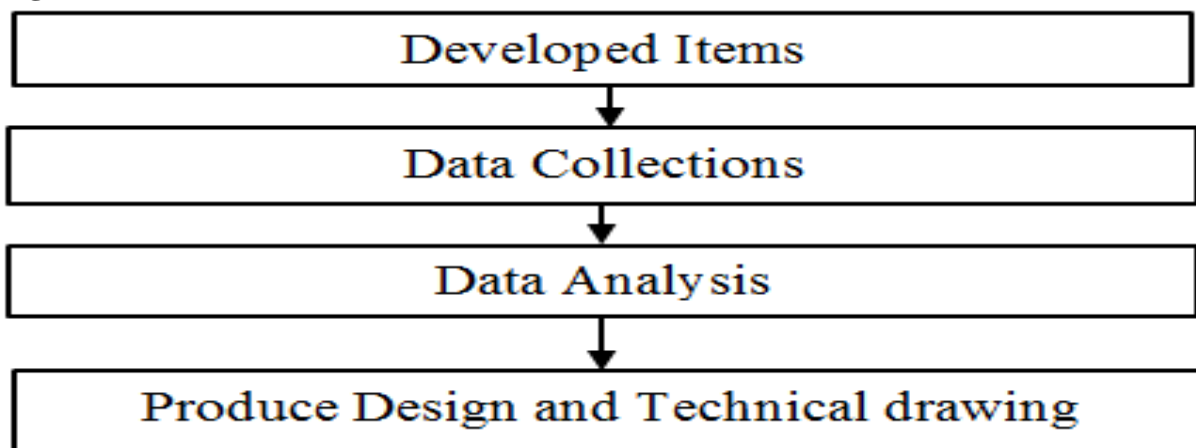
Objectives

The objective of this study was to study the features of handbag design, comfort, and safety that should be applied to the design of handbags for older women. This study also intends to design handbags based on consumer tastes through distributed questionnaires.

Methodology

The study design used was quantitative in the form of surveys. Prior to the manufacture of a handbag, a need analysis was carried out at a mall around Kuala Lumpur. The need analysis was carried out from women's consumer views on handbags will be produced. The questionnaire was distributed to 80 female respondents between the ages of 41 and 60 years. Handbags have been developed based on the need's analysis.

Figure 3.0. Flow chart of the research



Instruments

The research instrument used was a three-part questionnaire, Part A: Demographic Information; Part B: Features, Design, Safety and Comfort of Handbags. The number of items in this survey is 27 items.

Results

Respondents Demographics

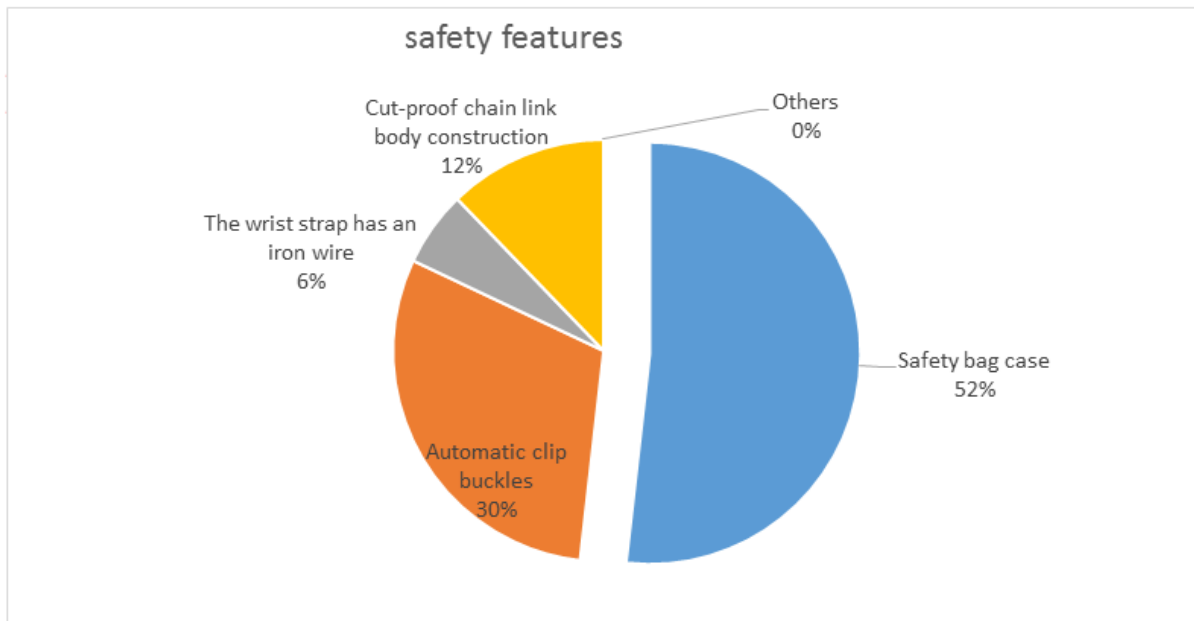
According to the analysis, respondents between the ages of 41 and 50 were the most involved in the study (68.75%) compared to the respondents between the ages of 51 and 60 (31.25%). In terms of marital status, the majority of the respondents in the study were married (71.25%) followed by widows (18.75%) and single (3.75%). The analysis also found that most people involved in this study were Malays (76.25%) followed by Chinese (11.25%), Indian, and others (6.25%). A total of 47.50% of respondents earning between RM 2,001 to RM 4,000 were involved in this study, followed by respondents earning less than RM 2000 (33.80%), non-income respondents (11.25%), and respondents earning RM 4001 to RM 6000 (7.50%).

Safety Features and Comfort

The findings indicate that respondents' views on the product prototype to be produced as well as the design features of the handbag, comfort and safety features that need to be applied to the handbag are also analysed.

Based on the analysis, it was found that 90.0% of respondents were concerned about the safety features needed in a handbag. The study also found that 98.75% of respondents were concerned about the convenience of buying a handbag instead of design and comfort. However, the respondents agreed that the researchers should include elements of safety including protective gloves and automatic release hooks for application in the innovation handbags to ensure the safety of women. Figure 4.0 shows the safety features that respondents agreed to apply in the innovation handbag. In addition, respondents also found that in order to produce handbags that had important safety features, the gloves had to be opaque on the inside and transparent on the outside (92.50%) and the stitches on the handbag should be strong (48.75%) and use thick fabric (41.25%).

Figure 4.0. Safety features agreed by respondents



In addition, respondents also stated that the right handbag style for the age of the women in the target group should be worn on the shoulders (82.50%). A total of 97.50% of respondents disagreed with the way handbags were used for women aged in the target group, stating bags should be worn at the back of the body, hands down (83.75%), and arms (77.50%).

Design Features and Comfort

As for the design of the handbags, respondents agreed that the handbags should be designed simple (80%) and lightweight and easy to carry anywhere (66.25%). In the case of handbags, respondents agreed that handbags should be moderately long to provide comfort to older women (97.50%). The best type of handbag for this group of women is from the same fabric as the handbag (85.0%). Respondents strongly disagreed if the handbag was made of plastic (98.75%), leather (86.25%), and iron (85.0%). In addition, 52 respondents said that the handbag does not need to have adjusters that can extend or shorten the strap of the handbag and the rest do not agree if the women's handbag is paired. Respondents also expressed the view that the handbag should be zippered (91.25%) to make it easier for users to use it.

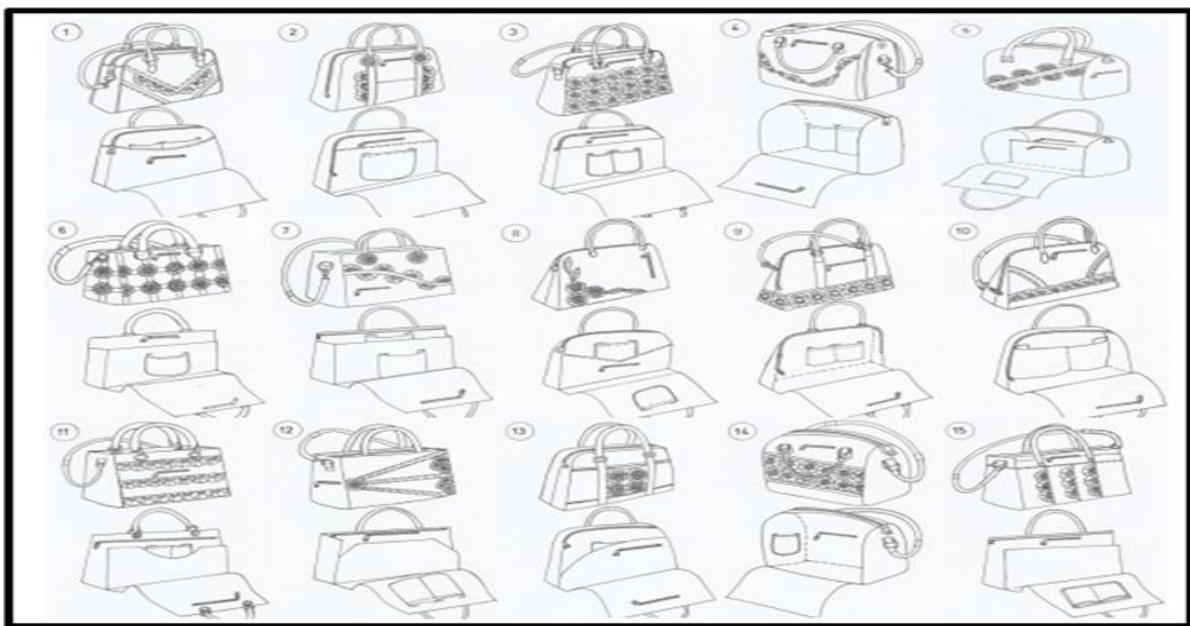
Additionally, for the size of the handbags, respondents agreed that the handbags to be designed were in medium size (76.25%). Based on the analysis, it was found that respondents prefer handbags that are rectangular (86.25%) square (17.50%) and circular (6.25%). The most suitable category of handbags for women was satchels (65.0%) and dark color (90.0%). For handmade decoration, respondents found that patch work (87.50%) was more suitable for women of age rather than smocking (3.75%), quilting (7.50%) and skin type (65%). In addition,

respondents suggested that batik (85.0%) was more suitable as a source of inspiration in producing this innovation bag compare with songket design (17.50%) and flower comb (7.50%).

Development of the Ideas

Ideas development assisted the researchers in crafting design ideas to fabricate a variety of design drawings. Figure 4.1 shows the sketch of the idea developed by the researcher.

Figure 4.1. Development of the ideas



This final design collection is a collection randomly selected by respondents. In the final design collection, the researcher had set only six design sketches with the highest number of choices selected by the target respondents to be used as the second questionnaire (S2) for design choices. The second questionnaire (S2) was to determine the most suitable product for this study. Figure 4.7 shows a sketch of the final design collections that the researcher has produced.

Figure 4.7. Drawings of Final Design



Discussion

This study discussed the design, safety, and comfort features that should be applied to handbags for women of all ages. In this study, the researcher proposed the safety features of the innovative handbag product that is ought to be developed by using a handbag strap application that has an iron wire cable inside it as suggested by Gamman (2006). In addition, the design of the zippered pouch as a latch on safety measures is the same as suggested by Cassela (2009) and Cantor (1993). In addition, as suggested by Han (2014), the safety features of handbags need to be emphasized that the use of iron net layers should be applied to the innovation of products produced. Satchel style handbags have been selected as the styles which is a small, box-shaped, bag with along strap and shoulder straps are in line with the recommendation of Fine (2015). However, in the study of Aprile et al., (2016) and Siambanes, Martinez, Butler, and Haider (2004), human shoulder that normally carry the maximum load can cause stress and tension on the spinal structure and may indirectly cause postural scoliosis. In addition, respondents also chose to have the briefcase designed in a simple and flexible manner. The findings of this study are in line with Blom's (2015) study which stated that anti-theft bags should have a simple design that is easy to carry and store to prevent theft. Further, the

respondent contended that the handbag strap does not need to be adjustable. This finding is in line with the study by Chin-Min, Yue-Chi, Wang, and Ying-Li (2015) where simple handbag design does not require adjustment. In addition, handbags without adjusters will look more luxurious.

While the choice of dark colours is chosen in preponderance because it suits all groups of women and it is appropriate to match with all colours (Hanani, 2015; Shahrin, 2016). Batik represents a fresh, elegant and sophisticated element (Mariatul, 2015). The decorator chose batik because, according to Mariatul (2015), batik can reflect a fresh, elegant, and sophisticated element.

Conclusion

The handmade women's handbags have the advantage of the convenience features of having a medium length strap to keep the bag comfortable and easy. In addition, it has a simple, convenient, and flexible bag design features. In These handbags will also feature simple design features and keep up with the latest design of the handbags, have a sleek, easy-to-hold fabric that is suitable for older women. The source of the inspiration for the handbags is from batik and it uses patch work as a decoration. In addition, the safety features of this product have automatic clip buckles (clip buckles) that can be released to save users from the risk of injury from falling if the handbag crosses the handbag. In addition, there is a sleeve safety protective glove case attached with this handbag. This protective bag cover will protect the handbag if the wearer wants to pull the bag over to the user, the wearer will pull the glove over the handbag and the case will slip or break out of the actual handbag. The thief had only a protective bag case and could not snatch the actual handbag. These protective bag covers are not sewn but are incorporated using the snap button which is the main function of removing the protective bag cover when pulled. Therefore, it is recommended for manufacturers of handbag products to be able to produce innovative handbags without neglecting the safety features in favour for gaining profits only.



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