



Banana fiber ribbon with flowers

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Abstract: This research aims to study the development and application of banana fiber ribbons, ribbons, flowers, banana fiber used in the choice of banana fiber ribbon of the floral arrangements. The data collected by questionnaire from a sample of 110 flowers were analyzed with computer software. The results show that the majority of female flowers. Aged between 31-40 years of undergraduate study. The experience of working with flowers less than 5 years with a monthly income of less than 10,000 baht and the location of a flower shop near the private satisfaction of the flower on the ribbon, banana fiber. The surface of the ribbon fiber banana is mostly satisfied with the durability of the subject. The flexibility of the ribbon, banana fiber and beauty. Most of them have the satisfaction of the shiny side of the ribbon to use. Most were satisfied with the subject. Appropriate in a bind, and the price. Most of our products at the price of banana fiber ribbons are suitable when compared to other natural fiber ribbon.

Keywords: banana fiber, ribbons, artificial flowers, artificial business, satisfaction

1. Introduction

Flower arrangement has been widely popular among every social classes due to its influential aspects in our daily life. As a result, flower arrangement's business is much in demand. The flower arrangement has been one of significant elements in ritual ceremonies. Further, it is also used for congratulating a person in various occasions.

The flower arrangements requires other necessary elements to inspire flower designers to perform their jobs successfully. Moreover, the designers can select decorative elements to create beautiful and valuable outcomes. Professional flower designers are not only a person who does floral, but they are also required to know principals of the flower arrangement, such as aesthetic aspects, technical aspects and artistic components.

In order to make floral works more beautiful and valuable, the floral designer needs to employ other elements for his/her floral arrangement such as ribbons, beads and etc. Nowadays, ribbons have been applied to be a significant element for various kinds of floral decoration. Further, they are made of both synthesized and natural fabrics, for example satin ribbon, soft wired ribbon, leather ribbon, film ribbon, mulberry paper ribbon, bark ribbon, water hyacinth ribbon, ramie and pineapple ribbon. General but significant problem regarding these types of material is that they need to be imported. As a result, their prices are relatively high.

Based on the discussion above, the researcher has paid special attention to develop banana fibers ribbons for floral decoration's usage. Results from this research have provided beneficial aspects to Baan Chompoo community, Phitsanulok province. It should be noted that the community has already weaved and produced banana fibers as their side job before the research being conducted. Purposes of this research are to (1) create new types of product that fits to market demand and (2) to reduce the community unemployment's situation after the cultivation seasons. Additionally, the purposes also conforms to Por Peang philosophy. Further, the benefits of this research are (1) to add value to banana plants, (2) to create side jobs for farmers, (3) to strengthen farmers, their families and their community, and to (4) to improve their



live qualities.

2. Equipments and Method

1. Material: the researcher selected cultivated banana (namwa banana) to be the main material for this research. This is because this breed has been widely cultivated in the community. It is important to note that banana plant cannot grow a new bunch again after banana fruits being cut. Therefore, the use of banana's spathe from these plants is considered as adding value to wasted materials.

2. Tools and equipments:

2.1 A knife

2.2 water

2.3 An aluminium spoon

2.4 basin, square 50 centimeters

3. Material preparation: the process starts with peeling 3-4 spathes of banana (from outer part). It should be noted that banana fabric from an inner part is too soft. Further, its fabric from this part is not long. Therefore, it is highly suggested to use the spathes from outer part only.

4. Separation of namwa bananas' fiber

Laying a spathe with a white part on top and cleaning its inner part

Using aluminum spoon to rub all skin tissue from both sides (rubbing it with a gentle force in order to protect the fiber not to be torn)

Cleaning the skin tissue attached to fibers in basin with water until the fibers become transparent white and shiny

Drying the fibers

5. Method of weaving banana fiber ribbons

5.1 Material: namwa banana fibers become the main material for weaving banana fiber ribbons.

5.2 Tools and equipments

5.1.1 Namwa banana fibers

5.1.2 Beewax

5.1.3 Water

5.1.4 Scissor

5.1.5 Shuttle

5.1.6 Knitting loom with reed comb

5.3 Weaving banana fiber ribbons

The process starts with making fibers into a twisted bunch. Later, the fibers are connected together in order to make long fibers. In terms of twisting the banana fibers, the process is more difficult than twisting other cellulose fibers because the banana fibers have less quality in terms of agglomeration. Therefore, beeswax and water are applied to enable them to be agglomerated to each other.

5.3.1 Regarding of applying the beeswax, the beeswax should be soften first. Later, applying the wax on the fibers and twisting them together.

Connecting threads together: in order to connect the fibers together (thread), one should lay rims



of separated twisted threads onto each other, then apply the wax on the rims of two twisted threads.

5.3.2 Preserving the threads: for convenient usage, the threads should be kept by adding them to a shuttle.

5.3.3 Weaving method: a loom can be applied in the weaving method, however it may cost high investment. One of the purposes in this research is to expand the knowledge to people in rural area or agricultural families. Therefore, the researcher has selected an uncomplicated method by using a small loom to weave the banana fiber ribbons. The methods are as followings:

Preparation for weaving

- Adding thread to a shuttle
- Adding thread to wrap beam on the small loom (the ribbon has 2 inches weight.)
- Plain weaving is proceeded by using thread on a shuttle up and down on the wrap beam and continuing doing this until one gets a satisfied length.
- Preserving the banana fiber ribbon by folding it into circle.

3. Research Operationalization

1. Regarding a study of satisfaction of a usage of banana fiber ribbons from flower designers' perspective, the research is observed through questionnaire. The questionnaire is divided into two sections:

1.1 General information

1.2 Satisfactory on the banana fiber ribbons from flower designers in Bangkok area

2. Areas of conducting the research are floral shops, educational places and hotels in Bangkok.

3. The demography in this research is primarily flower designers who come from big scale shops and tend to use ribbons in their flower arrangements.

4. Results and critiques

Results from the study of satisfaction of the banana fiber ribbons' usage from flower designers in Bangkok area can be divided into sections follow as;The satisfaction of the banana fiber ribbons' usage from flower designers in Bangkok area.

Results from the satisfaction of the banana fiber ribbons' usage from the flower designers in Bangkok area are primarily categorized into five aspects: (1) surface aspect, (2) durability aspect, (3) aesthetic aspect, (4) usage aspect and (5) price aspect. Tables 1-5 demonstrate the results from the aforementioned discussion.



Table 1 Mean of satisfaction of the banana fiber ribbons of flower designers: surface aspect

Satisfaction of the banana fiber ribbons' usage	Mean	Standard Deviation (SD)	Satisfactory level
Surface aspect			
1. Tenderness of the banana fiber ribbons	3.60	0.60	High
2. Rough of surface of the banana fiber ribbons	3.55	0.62	High
3. Transparency of the banana fiber ribbons	3.87	0.60	High
total	3.67	0.60	High

Source: from the research analysis

Regarding the surface aspect, the table 1 demonstrates that the satisfaction of the banana fiber ribbons' usage from flower designers is high. Mean of satisfaction of the material's transparency is the highest (=3.87). Tenderness of the material comes the second (=3.60) and rough of the surface is the third (=3.55).

Table 2 Mean of satisfaction of the banana fiber ribbons of flower designers: durability aspect

Satisfaction of the banana fiber ribbons' usage	Mean	Standard Deviation (SD)	Satisfactory level
Durability aspect			
1. The banana fiber ribbons' durability	3.83	0.65	High
2. Crumple of the banana fiber ribbons	3.67	0.80	High
3. Flexibility of the banana fiber ribbons	3.93	0.74	High
total	3.81	0.73	High

Source: from the research analysis

Concerning the durability aspect, the table 2 indicates that the satisfaction of the banana fiber ribbons' usage from flower designers is high. Mean of satisfaction of the material's flexibility is highest (=3.93). Durability of the material comes the second (=3.83) and the crumple becomes the third (=3.67).



Table 3 Mean of satisfaction of the banana fiber ribbons of flower designers: aesthetic aspect

Satisfaction of the banana fiber ribbons' usage	Mean	Standard Deviation (SD)	Satisfactory level
Aesthetic aspect			
1. Shiny side of the banana fiber ribbons	3.74	0.74	High
2. Decent colors of the banana fiber ribbons	3.70	0.66	High
3. Proper size of the banana fiber ribbons	3.69	0.63	High
total	3.71	0.67	High

Source: from the research analysis

The table 3 reveals results of satisfaction of the banana fiber ribbons' usage from flower designers in terms of aesthetic aspect. The mean is high. Shiny side of the material gained highest level (=3.74). Decent color of the material comes the second (=3.70) whereas the size is the third (=3.69).

Table 4 Mean of satisfaction of the banana fiber ribbons of flower designers: usage aspect

Satisfaction of the banana fiber ribbons' usage	Mean	Standard Deviation (SD)	Satisfactory level
Usage aspect			
1. Knotting capacity of the banana fiber ribbons	3.80	0.68	High
2. Binding capacity of the banana fiber ribbons	3.79	0.70	High
3. Bonding capacity of the banana fiber ribbons	3.71	0.67	High
total	3.77	0.68	High

Source : from the research analysis

The table 4 indicates satisfaction of the banana fiber ribbons from flower designers in terms of their usage aspect. Results reveals that satisfaction of knotting capacity gained highest mean (=3.80). Binding capacity comes the second (=3.79) and bonding capacity is the third (=3.71).



Table 5 Mean of satisfaction of the banana fiber ribbons of flower designers: price aspect

Satisfaction of the banana fiber ribbons' usage	Mean	Standard Deviation (SD)	Satisfactory level
Price aspect			
1. Price of the banana fiber ribbons reduces the cost of usage of other imported ribbons (natural fiber ribbons)	3.83	0.65	High
2. Cost of the banana fiber ribbons is relatively low comparing to other synthesized fiber ribbons	3.67	0.80	High
3. In comparison with other natural fiber ribbons, price of the banana fiber ribbons is appropriate.	3.93	0.74	High
total	3.81	0.73	High

Source : from the research analysis

Regarding the price aspect, the table 5 demonstrates that there is a high satisfaction of the banana fiber ribbons from flower designers. In terms of its price in comparison with the price of other natural fiber ribbons, mean of satisfaction gains highest (=3.93). The satisfaction of cost reduction by using the banana fiber ribbons comes the second (=3.83). Comparing to the cost of imported ribbons, the satisfaction of using the banana fiber ribbons is the third (=3.67).

5. Conclusion

The following paragraphs aim to clarify and discuss issues relating to the purposes of this research.

Based on the general information gained from conducting the questionnaire, it is clear that most of the respondents are female. This is because floral arrangement business has been more popular for women than men. For locations of floral shops, the locations, found in this data collection, are primarily located nearby private companies due to their high purchasing power in these areas.

Satisfaction of the banana fiber ribbons from flower designers in Bangkok area is relatively high. The satisfaction are measured and summarized into four aspects, which are discussed in the following paragraphs.

The satisfaction of the ribbons in terms of its surface (its transparency, its tenderness and its rough), the data indicates that, among the three qualities, transparent quality of the material have gained the highest satisfaction. This is probably the banana fiber ribbons, developed in this project, are not only unique, but also similar to other natural fiber ribbons, imported from other countries.

Further, the ribbons appears to be soft and tender. Based on the respondents' opinions, the ribbons do not cause any irritation. Rough surface of the material becomes another attractive aspect.

Regarding satisfaction of the durability aspect (its durability, its crumple and its flexibility), the data collection reveals that the flexibility, found in this material, has the highest



mean. This is because the plain weaving create space in the structure of the material. As a result, the effect gained from this weaving process makes the materials similar to organza fabric and makes them being flexible.

In terms of the aesthetic aspect (its shinny side and its proper size), results from this research reveal that there is high satisfaction on the material's glossiness. The natural shinny side make the material being unique comparing to other synthesized fiber ribbons.

Results from usage of the banana fiber ribbons reveals that there are high satisfaction in terms of its knotting, binding and bonding capacities. This may be because of most of the users use the ribbons for decorative purpose and apply them into one of elements in their works. Further, its quality (its tenderness, its transparency, its flexibility, its shinny side and its natural color) makes the material appropriate for decorative purpose. Based on the highest mean of knotting aspect, one can say that most of the users like to knot the ribbons the most. The fact that the users seem to like this aspect the most may be involved with their experience in floral arrangement. Their experience in the business are less then five years, which may affect their creativity of binding and bonding ribbons in general. Further, this is probably because of size of the sample is 1 ½ inches, which may be stronger than other other kinds of banana fibers.

The results present that satisfaction of the banana fiber ribbons in terms of their price are high. The respondents seem to be satisfied by the ribbon's price because the material and the production are basically in the country. Therefore, the price is relatively low comparing to prices of other imported ribbons. While price of banana fiber ribbons is 15 Baht per one yard, price of imported natural fiber ribbons that are more or less similar to the banana fiber ribbons, can be up to 25 Baht per yard. In other words, the banana fiber ribbons are 60 percent cheaper than other natural fiber ribbons. The development of banana fiber ribbons has decreased the import of natural fiber ribbons from other countries. Further, it has reduced pollution from using synthesized fiber ribbons, and has added value to the wasted material.

Suggestion for future research

- Future research should encompass a study of ribbons made from other natural materials.
- Future research should conduct a comparative study of the materials' quality between banana fiber ribbons and other synthesized fiber ribbons in a market.
- In order to develop the ribbon's production into industrial scale's product, future research should study production cost of banana fiber ribbons
- Further research should also focus on a development of styles and sizes of banana fiber ribbons.

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