

THE ANALYSIS OF PRODUCT ATTRIBUTE EFFECT UPON CONSUMER DECISION TO PURCHASE PRODUCTS OF SILVER AND GOLD HANDICRAFTS IN DENPASAR BALI

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ABSTRACT

Bali is one of the main tourist destinations in Indonesia, Bali is very broad and significant implications for the development in the world of business directly with tourism businesses and supporting tourism, the growth and development of handicraft business in Bali. Most markets in Bali handicraft industry is the export market. Development of handicraft business in Bali, make existing companies to compete and be able to take advantage of opportunities that exist in order to survive.

Slowly but surely now commodities gold and silver jewelry become new flagship export of handicrafts from Denpasar, the more so after the rupiah was devalued against the dollar. Advantages of gold and silver handicraft products from Denpasar lies in the quality and the design is very nice, unique and interesting, because the jewelry industry generated by household's crafts hand made. But that still block the development of marketing or export of gold and silver handicrafts, including import duties of raw materials is high enough, not to mention the taxes to be paid as 10% for jewelry making tax, tax for selling to the retailers 10% and 10% tax on consumers.

Keywords: Effect of product, attributes, consumers, decision and customer

INTRODUCTION

Research Background

Tourism industry in Indonesia is vastly developing. It is one of potential sectors which may support the Nation income significantly as well as highly beneficial for the people who are engaging within. Bali has been appointed as one of the main tourism destination in

Indonesia. Development and progression of Balinese tourism has significant influence on the business sector in which handicraft industry is significantly growing and developing in Bali. It inspires the businessmen to take a part on this biggest market because some of the handicraft in Bali is export market. In the globalization and liberalization era, business will rapidly develop in which the competition will be no longer categorized as high competition but tends to be hyper competition.

Handicraft product in Denpasar Bali is getting familiar with international market. The design and pattern are developing, in which some broad seller agents and consumers gave positive responses and it is followed by the emerging art shop and outlet which offer handicraft products and the development of handicraft export yearly. One of handicrafts in Denpasar Bali is gold and silver, which is located in tourism area. In order to be competitive in globalization era and free market, the management should plan accurate marketing mix strategy for their company which is appropriate with their strengths and weaknesses not only to solve the problem and face the threat but also to seek a chance to face the changes. Therefore, in writing this thesis, the writer interested in studying further about product attribute which becomes the company internal factor influencing the consumer decision to purchase gold and silver handicraft products.

Research Problem

Based on the above research background, the research problems of this study can be formulated as follows:

1. How is the effect of product attribute (quality, design, price and service) upon consumer decision to purchase gold and silver handicraft products in Denpasar Bali?
2. What is the most significant factor influencing consumer decision to purchase gold and silver handicraft products in Denpasar Bali?

Industry Profile

The contribution of handicraft sector in increasing PDRB (local income) of Denpasar City is more than 10% with export volume of handicraft products reached 50.057.853,37 or valued \$ 72.694.386,36 and the contribution of gold and silver handicraft reached 2.452.660 gram per year, and the exported countries are USA, France, Germany, Canada, and other European countries as well as Asian countries. The world still admits that gold and silver jewelry of Denpasar Bali is high quality because usually the jewelry is produced by hand-made household industry with unique and attractive designs.

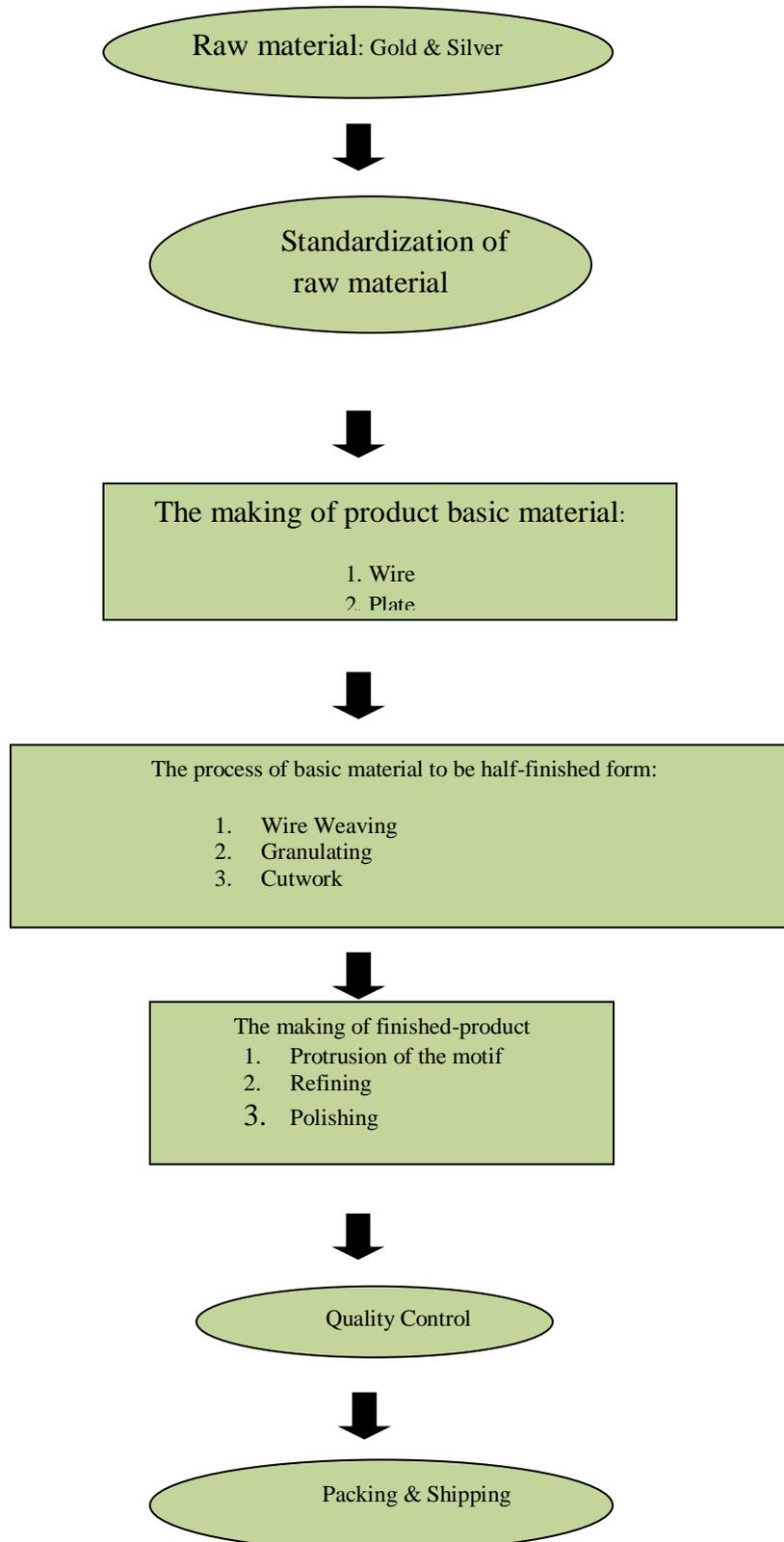
A. Characteristics of Gold and Silver Handicraft Industry in Denpasar Bali

No	Element	Characteristics
1	Employee	Most of them are 14-40 years old employees
2	Capital	Principally, the capital used depends on size of the company and the produced gold and silver model
3	Tools	Blender, building (workplace), polish machine, scissor and stove
4	Product Model/Design	Earing, bracelet, pendant, ring, brooch, and hairpin
5	Marketing	Usually directly to buyer or through the existing local exporter
6	Product Price	Product price is fluctuated depending on design, weight, the raw material
7	Kind of production process	Continuously fulfilling order and for stocking

B. Production Process

Generally, production process is conducted to produce gold and silver handicraft product which is started from raw material until final step of delivering the product, to be cleared the production process can be seen in the following chart:

Production Process



RESEARCH METHODS

Object of the Research

The object of this research is the effect of product attributes upon consumer decision to purchase gold and silver handicraft product. Meanwhile, the place of this research is in Denpasar City of Bali.

Source of Data

The primary data are collected directly from the consumers who purchased the product. Secondary data are collected indirectly by the researcher, but these have been collected by other parties.

Method of Data Collection

1. Observation on the product attributes including the quality, design, price and service upon consumer decision to purchase handicraft product.
2. Interview directly some consumers.
3. Questionnaires by writing detail and complete question lists in a list of questions so the respondents can fill in their own answers.

Research Variables

1. Dependent Variable is the consumer decision to purchase gold and silver handicraft product. Dependent variable in this study is marked as Y.
2. Independent Variable is the product attribute influencing the consumer decision to purchase gold and silver handicraft product which including:

X1 = product quality

X2 = design

X3 = price

X4 = service

Operational Definition of Research Variables

It is a way to describe the variables operationally in order to be specific (not having more than one meaning) and confused (measurable).

1. Consumer decision (Y)

It means doing or not doing a particular activity, that is the consumer decision to purchase gold and silver handicraft product. The indicators to measure consumer decision are:

- a. Not being hesitated or be sure in purchasing
- b. Loyalty of the consumer to purchase
- c. Careful consideration to purchase
- d. Consistent in purchasing

2. Product Quality (X1)

It means showing the quality of the offered handicraft product. The indicator in measuring this quality are:

- a. The raw material used
- b. Durable
- c. Product reliability

3. Product Design (X2)

Design shows the form or model of the handicraft product. The elements used as indicators to measure this design are:

- a. Product Performance
- b. Product Style
- c. Product Form
- d. Product Diversity

4. Price (X3)

Price shows product ability to give satisfaction to a person which is valued by currency paid to the seller as the replacement of the product.

- a. Level of the offered product price
- b. Reasonable or the appropriateness of the price with the product function
- c. Discount
- d. Payment system

5. Service (X4)

Service means a service provided by the businessmen which is related to the effort of seeking, gaining, using until sale after service from the product purchased by consumer.

Elements used as parameter of this variable are:

- a. Packaging
- b. Delivery
- c. Guarantee
- d. Selling service in the outlet

Population and Sample

Population of this research is all of the consumers who purchased gold and silver handicraft product in Denpasar Bali. Random sampling was used as the sampling technique in order to determine the size of respondent, especially the accidental sampling or well known as opportunity sampling (the samples were taken accidentally), in which the sampling area covered all consumers who purchased gold and silver handicraft product in Denpasar Bali.

Method of Analysis

All of the collected data were analyzed to find the effect of product attributes including quality, design, price and service upon consumer decision to purchase gold and

silver handicraft product. The method of analysis used to test the hypothesis was statistical analysis, in which the steps were conducted by using computer program assistance (software) of SPSS (*statistical program for social science*) version 10.

The collected data from questionnaires were recapitulated and scored by using the following requirements:

1. Strongly Agree was scored4
2. Agree was scored3
3. Do not Agree was scored2
4. Strongly do not Agree was scored1

After scoring, the data were processed by using analysis of relevant descriptive quantitative and statistical test by the following technique:

1. Multiple linear regression analysis

It was used to find the effect among factors of product quality, design, price and service upon consumer decision to purchase gold and silver handicraft product in Denpasar Bali.

The linear equations used was:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + E$$

Description:

Y = Consumer Decision

X1 = Product Quality

X2 = Design

X3 = Price

X4 = Service

b0 = Constanta coefficient

b1 = Value of Regression Coefficient for Variable X1

b2 = Value of Regression Coefficient for Variable X2

b3 = Value of Regression Coefficient for Variable X3

b4 = Value of Regression Coefficient for Variable X4

E = Error Term, it was another independent variable which influenced Y but it was not inserted into the analysis model.

2. Calculating regression and correlation coefficient
3. Testing regression coefficient of each independent variable partially by using test formulation with the following steps:

- a. Making hypothesis formula

$H_0 : \beta = 0$ (regression coefficient is not significant) it means there is no significant/meaningful effect from independent variable (X) to dependent variable (Y)

$H_1 : \beta \neq 0$ (regression coefficient is significant which means there is significant/meaningful effect from independent variable (X) to dependent variable (Y)

- b. Determining level of significance by using T-table.

- c. Finding T-score by using the following formula:

$$t\text{-score} = \frac{b}{S_b}$$

- d. Decision

H_0 : is accepted if $t\text{-score} < t\text{-table}$

H_1 : is denied if $t\text{-score} > t\text{-table}$

4. Testing regression coefficient together by using F-test by the following steps:

- a. Making hypothesis formula

$H_0 : b_1 = b_2 = b_3 = b_4 = 0$ it means there is no significant effect together from independent variables (X) upon dependent variable (Y).

$H_a : b_1 \neq b_2 \neq b_3 \neq b_4 \neq 0$ it means there is significant effect together from independent variables (X) upon dependent variable (Y).

- b. Determining level of significance by using F-table.

- c. Finding F-score by using the following formula:

$$F\text{-score} = \frac{R^2 / (k-1)}{(1 - R^2) / (N - k - 1)}$$

- d. Decision

H_0 : is accepted if $F\text{-score} < F\text{-table}$

H_0 : is denied if $F\text{-score} > F\text{-table}$

RESEARCH FINDING AND DISCUSSION

Consumer decision is to purchase or not to purchase gold and silver handicraft product. Indicator to measure consumer decision can be seen from loyalty of the consumer in purchasing. Consumer decision to purchase is influenced by attributes of product quality, design, price and service which are accepted by the consumer of gold and silver handicraft product.

1. Product Quality

Research finding of consumer decision upon attribute of product quality

No.	Respondent response	Frequency	Percentage (%)
1	Strongly do not agree	5	1,11
2	Do not agree	70	15,55
3	Agree	120	26,67
4	Strongly agree	225	56,67
Total		450	100

Source: processed primary data

2. Product Design

Research finding of consumer decision upon attribute of product design

No.	Respondent response	Frequency	Percentage (%)
1	Strongly do not agree	15	2,5
2	Do not agree	60	10
3	Agree	240	40
4	Strongly agree	285	47,5
Total		600	100

Source: processed primary data

3. Product Price

Research finding of consumer decision upon attribute of product price

No.	Respondent response	Frequency	Percentage (%)
1	Strongly do not agree	0	0
2	Do not agree	110	18,34
3	Agree	200	33,33
4	Strongly agree	290	48,33
Total		600	100

Source: processed primary data

4. Service

Research finding of consumer decision upon attribute of service

No.	Respondent response	Frequency	Percentage (%)
1	Strongly do not agree	0	0
2	Do not agree	15	2,5

3	Agree	325	54,17
4	Strongly agree	260	43,33
Total		600	100

Source: processed primary data

5. Consumer decision to purchase

No.	Respondent response	Frequency	Percentage (%)
1	Strongly do not agree	0	0
2	Do not agree	35	5,83
3	Agree	270	45
4	Strongly agree	290	49,17
Total		600	100

Source: processed primary data

The Analysis and Hypothesis Testing

1. Multiple Regression Test

In order to find the effect of independent variables including the product quality (X1), product design (X2), price (X3), and service (X4) upon dependent variable (Y) that is to purchase gold and silver handicraft product in Denpasar Bali, multiple regression test was used.

The Result of Multiple Regression Analysis on the Variables of Product Quality, Design, Price and Service

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	,860	,814		1,057	,292		
QUALITY	,155	,063	,150	2,450	,015	,533	1,875
DESIGN	,431	,045	,537	9,670	,000	,644	1,552
PRICE	-,469	,064	-,573	-7,353	,000	,328	3,053
SERVICE	,863	,093	,706	9,237	,000	,340	2,939

a. Dependent Variable : DECISION

Source: processed primary data

The regression equation model gained from this research is as follows:

$$Y = 0,860 + 0,155 X1 + 0,431 X2 - 0,469 X3 + 0,863 X4 + e$$

Constanta 0.860 showed that if independent variable (product quality, design, price and service) was considered constant, so the score of consumer decision was 0.860.

Score of regression coefficient of the product quality variable (X1) was 0.155 which

meant that if variable X1 changed one unit so Y would change 0.155 by assuming that other variables were not changing. It means that if quality of the gold and silver handicraft product which is reflected by quality raw material, durable and reliable product, the consumer decision would be increasing 0.155.

Regression coefficient score of product design variable (X2) was 0.431 which meant if the variable X2 changed one unit, so Y would change 0.431 by assuming that other variables were not changing. It means that if the product design was good reflected by performance, style, form, and diversity of the product, the consumer decision would increase 0.431.

Regression coefficient score of product price variable (X3) was 0,469 which meant if variable X3 changed one unit, so Y would change 0.469 by assuming that other variables were not changing. Negative mark in regression coefficient score showed the change of product price was inversely proportional with consumer decision, because in purchasing gold and silver handicraft product the consumer did not aware too much on the price variable.

Coefficient score of service variable (X4) was 0.863 which meant if variable X4 so Y would change 0.863 by assuming that other variables were not changing. It means that if the service was good reflected by the packaging, delivery, guarantee given, easy to find, the consumer decision would increase 0.863.

2. F test

F test was used to test all regression model whether true or not the X1, X2, X3, and X4 (in this research were product quality, design, price and service) simultaneously had relation to Y (consumer decision).

From the collected data, it was found that the regression equation was significant or indeed there was relation between product quality, design, price and service

simultaneously with consumer decision to purchase gold and silver handicraft product. It is shown by significance level from regression model which was found the significance level on 5%. It showed significant score (Sig F= 0,000 which means the significance was in level of 5%).

3. T test

The significance of the gained regression coefficient should to be tested in order to find the most appropriate regression line equation, so T test should be conducted. From the collected data, all independent variables significantly influenced dependent variable because the score of sig t-score $< 0,05$. From the coefficient score of partial correlation, so it can be concluded that design variable had partial influence 62,6%, and dominantly influenced the consumer decision to purchase gold and silver handicraft product in Denpasar Bali.

4. Assumption Test

a. Multi-collinearity Test

Multi-collinearity test was used to find whether from the regression it was found correlation among the independent variables. Only service variable which has as high as correlation with the price with correlation level of -0,753 or around 75,3%. Therefore, the correlation is still under 90%, so it can be concluded there was no serious multi-collinearity. The calculation result of VIF score (factor inflation variant) showed there was no independent variable had VIF score more than 10. So, it can be concluded that there was no multi-collinearity among independent variables in the regression model.

b. Heteroscedasticity Test

Heteroscedasticity test aimed at testing whether in regression model there was inconsistent variant from another residual observation. The basis of decision

making used, if there was a certain pattern, such as dots forming a regular pattern (spreading wave, then narrowing) so there was a heteroscedasticity. From the heteroscedasticity test, it was found that the dots were spreading randomly, did not form a certain clear pattern, and spread out on and under 0 on Y axis. It means that there was no heteroscedasticity in regression model, so the regression model was worthy to be used to predict dependent variable based on the independent variables.

Strategy Formulation in Influencing Consumer Decision to Purchase Gold and Silver Handicraft Product in Denpasar Bali

From all the above conducted analysis, it can be concluded that factors of product quality, design, price and service significantly influenced consumer decision to purchase gold and silver handicraft product in Denpasar Bali, so the strategy formula to influence consumer decision in purchasing gold and silver handicraft product can be seen as follows:

1. The company of gold and silver handicraft should be able to create consumer perception about the expected product quality by conducting continuous research & development (R&D), to produce quality product by good quality raw material so the product will be durable and reliable.
2. Implementing strategy of differentiation focus through long-term pre-emptive innovation and create competitive advantage.
3. Price strategy influences consumer decision to purchase handicraft product, it is done through by establishing price strategy by considering the quality of the product. Since the products are mostly high quality product, so this business can choose premium price strategy.
4. Considering and improving better and professional service standard in serving the customer. In facing more competitive competition, customer oriented should be

implemented, such as giving efficient delivery time, packing system by considering safety of the delivery.

CONCLUSION AND SUGGESTION

Conclusion

After conducting multiple regression test, it was found that regression coefficient score of each independent variable was strong. Regression coefficient score from independent variables of product quality, design, and service was positive which showed in line relation between variable of product quality (X1), design (X2) and service (X4) upon consumer decision to purchase gold and silver handicraft product. Meanwhile, regression coefficient from price variable (X3) was negative which means there was inverse relation between variable of consumer decision with price variable.

Simultaneously, variable product quality, design, and service influenced significantly so did the design variable had dominant partial influence upon consumer decision to purchase gold and silver handicraft product in Denpasar Bali.

Suggestions

The businessmen should formulate clearly their policies and procedures to reach the expected consumer satisfaction by: consistently keeping the product quality, developing product design innovatively and flexibly, developing price strategy to be more competitive and improving better and more professional service standard in serving the customer. The business of gold and silver handicraft should be able to implement marketing concept which has a paradigm that the key to achieve organization goals relies on organization ability to create, give and communicate customer value to the target market effectively by using anticipative marketing, that is by predicting what is needed by the consumer in the near future.

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