
Analysis of Service Quality, Trust and Commitment to Customer Satisfaction and Loyalty in Madura Batik Products

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ABSTRACT

Batik is a part of Indonesian culture. Since long ago, Batik cloth is still a fabric representing Indonesian culture. Batik cloth is also a national cloth that provides special features for Indonesia. In this research conducting analysis of service quality, consumer confidence, commitment to customer satisfaction and customer loyalty in Madura batik products. The method used is PLS (Part Least Square). Models formed with PLS can be optimal in prediction accuracy has a large complexity and samples ranging from 30 to 100 samples. This research is done in one of the districts in Madura Island, Bangkalan regency. In the district Bangkalan many SME batik that sells Madura batik products. Samples of consumers taken as much as 100. his research consists of two models namely model 1 about service quality, consumer confidence, commitment to customer satisfaction. Model 2 on service quality, consumer confidence, and commitment towards customer satisfaction to customer loyalty. From the results of The value of coefficient of determination of model 1 is 0.888 or 88.8%. In Model 2 the value of coefficient of determination of the Model 2 is 0.906 or at 90.6%. From the hypothesis test results that from Models 1 and 2 that have a significant influence is the commitment variable, while other variables have no effect. From the measurement goodness of fit acquired that the Model 1 and 2 is said to be a good overall model prediction

Keywords: Goodness of fit, Madura Batik, Part Least Square.

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1. Introduction

According to law Regulation number 20 year 2008, UMKM (Small and medium enterprises) consist of micro enterprise, small business, and medium enterprises. Micro-business is a productive business owned by individuals as well as individual business entities. Small business is a standalone productive economic endeavor, conducted by an individual or business entity that is not a subsidiary and not a branch of the company owned, mastered, or becomes part either directly or not From medium enterprises or large businesses. Medium Enterprises is a standalone productive economic endeavor, conducted by individual or business entity that is not a subsidiary or non-branch company owned, mastered, or becomes part either directly or not From medium enterprises or large businesses with net worth or yearly sales outcomes [1].

Batik is a painting or drawing on a Mori made using a tool called canting. The person who painted or drew on the canting Mori wears a batik called[2]. Batik industry in Madura, especially in the district Bangkalan consist of several SMES that belong to micro-enterprises. Madura batik industry comes from history so the batik center in Madura region is not too far from the palace because in the history of batik maker itself is a citizen among the palace.

Competition of batik sales in the Bangkalan itself has been growing, so that the entrepreneurs write not only batik, but also market the

production results directly to the consumer or send it to various batik shops. Competition that strictly continues to provide evaluation to know the wishes of consumers to batik products. Batik producers continue to increase the number of customers so that the product is known to all consumers. In addition, batik producers want to be trusted producers in all consumers.

Batik entrepreneurs will continue to race the race in search of consumers as much as possible to make loyal consumers and trust in their products. Some that have been done by the party batik producers to increase the consumer is the improvement of service, quality of service, trust and others.

Based on the research [3] about the analysis of the service quality of Indihome internet at PT. X with Part Least Square stating that the tangible and responsiveness variables have no significant effect on the service quality of Indihome internet, While the empathy, assurance, and reliability variables affect the service quality of the Indihome Internet. Therefore, in this study wanted to know the influence of service quality, trust and commitment to customer satisfaction and loyalty. The purpose of this research to know the interpretation of customer about the products of Madura Batik especially in the district Bangkalan as the development of batik industry.

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2. Literature Review

2.1. Batik

Batik is the art of painting certain patterns on the cloth using various motifs, as well as colors. In each batik motif there are various meanings implied in it. In addition, batik is also an authentic Indonesian culture that has been known for a long time and characterizes traditional fashion. In the process of batik development is acculturation with other cultures so that it is seen in the changes of motifs and usefulness [4].

2.2. Service Quality

According [5], stated that the quality of service is an effort to fulfill the needs and wishes and accuracy in balancing consumer expectations. In addition, the quality of service is the defining element for the company in maintaining the consumer, where to realize a sense of comfort and have more value expected.

2.3. Trust

Trust is a psychological state of a person in conducting activities. Example of trust in making a product purchase. Trust also provides support in the process of purchasing the product to be done. Consumer confidence is a form of consumer support to the efforts made to get everything that is desirable. In addition, trust will provide support related to the purchase decision to be set [6].

2.4. Commitment

Commitment is customer's long-term orientation to business relationships. In addition, the commitment also consists of two types namely affective commitment, continuous commitment [7]. Commitment is also a desire to develop stable relationships and provide short-term sacrifices to be able to maintain relationships and believe in the stability of relationships [8].

2.5. Consumer Satisfaction

Consumer satisfaction is a result of conformity with the expectations that are perceived by users of products and services of the performance of a company. Consumers will be satisfied when their expectations can be fulfilled, and feel happy when expectations can be exceeded [8].

2.6. Consumer Loyalty

Loyalty is the ability of the company in positioning its products to customers, where the company is able to consider the customer as a means to provide stability for the confidence of the customer, the company also always interact, and also Development for Mutual progress [8].

2.7. Part Least Square (PLS)

PLS (Partial Least Square) is a causal modeling approach that has a purpose to maximize the variances of latent variable criteria that can be explained (explained variance) By the variable latent predictors. Moreover, PLS (Partial Least Square) Also used for the creation and model development by using an approach that has orientation on the predictions. Models formed with PLS can be optimal in predictness accuracy has a large complexity and samples ranging from 30 to 100 samples [3]

3. Method

3.1. Sample

The study used samples of 100 consumers. Consumers who use the consumer who bought Madura Batik products in SMES in Bangkalan district.

3.2. Research framework

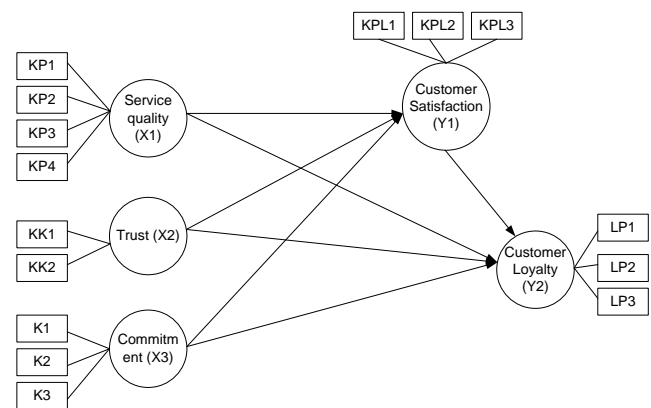


Figure 1. Research framework

3.3. Hypothesis

Based on the problems in the research and objectives, the hypotheses. Hypothesis of model 1 (service quality, customer trust, and commitment to customer satisfaction)

- Hypothesis of services quality to customer satisfaction (H1)
H0: There is no influence between service quality to customer satisfaction.
H1: There is an influence between service quality to customer satisfaction.
- Hypothesis of customer trust to customer satisfaction (H2)
H0: There is no influence between customer trust to customer satisfaction.
H1: There is an influence between customer trust to customer satisfaction.
- Hypothesis of commitment to customer satisfaction (H3)

H0: There is no influence between commitment to customer satisfaction.
 H1: There is an influence between commitment to customer satisfaction

Hypothesis of model 2 (service quality, customer trust, and commitment, towards customer satisfaction to customer loyalty)

- Hypothesis of service quality to customer loyalty (H4)
 H0: There is no influence between service quality to customer loyalty.
 H1: There is an influence between service quality to customer loyalty.
- Hypothesis of customer trust to customer loyalty (H5)
 H0: There is no influence between customer trust to customer loyalty.
 H1: There is an influence between customer trust to customer loyalty.
- Hypothesis of commitment to customer loyalty (H6)
 H0: There is no influence between commitment to customer loyalty.
 H1: There is an influence between commitment to customer loyalty.
- Hypothesis of customer satisfaction to customer loyalty (H7)
 H0: There is no influence between customer satisfaction to customer loyalty.
 H1: There is an influence between customer satisfaction to customer loyalty.

Decision making :
 If t value ≤ 1.96 then accept H_0
 if t value > 1.96 then reject H_0

3.4. Completion Stage

At Outer Model stage specify or define how each indicator reflects or illustrates its own variables. The tests performed on the outer model are:

- Convergent validity is the value of loading factor in latent variables with indicators. The value to be $> 0,5$
- Reliability construct of composite reliability and Cronbach alpha value $> 0,7$ For all latent variables.
- Validity of discrimination is to compare the value of square root of average variance extracted (AVE) of each construction with the correlation between other construct in the model. AVE value $> 0,5$
- Coefficient of determination value (R-squared) is used to demonstrate how large all exogenous variables describe the endogenous variable.
- *Estimate for path coefficients* Is the value of a line coefficient or also called a large latent influence or relationship. At this stage also created a regression equation :

Model 1

$$Y = \gamma_1 KP + \gamma_2 KK + \gamma_3 K + C \quad (1)$$

Where :
 Y = customer satisfaction
 KP = service quality
 KK = customer trust
 K = commitment
 $\gamma_1... \gamma_3$ = Coefficient value for each variable
 C = error
 Model 1

$$Y = \gamma_1 KP + \gamma_2 KK + \gamma_3 K + \gamma_4 KPL + C \quad (2)$$

Where :
 Y = customer loyalty
 KP = service quality
 KK = customer trust
 K = commitment
 KPL = customer satisfaction
 $\gamma_1... \gamma_4$ = Coefficient value for each variable
 C = error

The testing at Inner Model stage is:

- Conducting analysis GoF (*Goodness Fit Index*) to evaluate the measurement models and structural models and simple measurements for the overall prediction of this measurement model with communality value. The formula is:

$$GOF = \sqrt{\frac{\text{communality}}{n}} \times R^2 \quad (3)$$

Description:
 R^2 = Coefficient of determination value.
 n = number of variable

Decision making:
 If GOF is worth 0.1 then it can be said GOF small, if worth 0.25 then it can be said medium and if it is worth 0.36 then it can be said large

- The inner model aims to know the significance of the influence between variables using the Bootstrapping method or also called a with T test. T statistical value used is = 1,96

4. Result and Discussion

4.1. Outer Model

Below is the result of the outer model PLS (*Part Least Square*) :

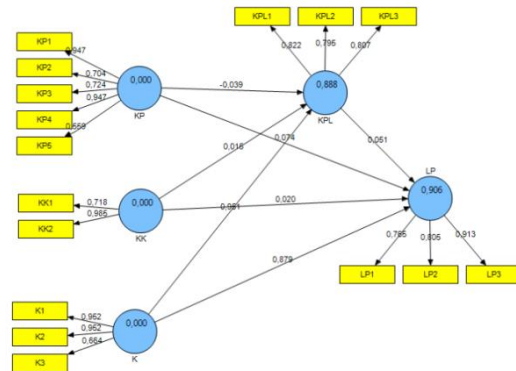


Figure 2. Outer model

- Testing Convergent Validity
 Decision making:
 If the value of loading factor is > 0.5 then the indicator reflects the variable.

Table 1. Loading Factor

No	Indicator	Loading factor
1	KP1	0,947
2	KP2	0.704
3	KP3	0.724
4	KP4	0.947
5	KP5	0.559
6	KK1	0.718
7	KK2	0.985
8	K1	0.952
9	K2	0.952
10	K3	0.664
11	KPL1	0.822
12	KPL2	0.795
13	KPL3	0.807
14	LP1	0.785
15	LP2	0.805
16	LP3	0.913

From the result of loading factor indicators > 0.5 then can be said to have all indicators can reflect the variable

- Reliability Construct

Decision making :

If the value of composite reliability or Cronbach's alpha > 0.7 then a model is said to have good validity and reliability

Table 2. composite reliability and cronbach's alpha

Indicator	Composite Reliability	Cronbachs Alpha
KP	0.889393	0.860095
KK	0.849339	0.739456
K	0.898455	0.819797
KPL	0.849486	0.747362
LP	0.868606	0.773337

On table 2 can be explained that the value of all variables latent, service quality, customer trust, commitment, customer satisfaction and customer loyalty have the value of composite reliability or Cronbach's alpha > 0.7 then a construct model is said to have good validity and reliability.

- Testing of discriminant validity

Decision making :

If the AVE value is > 0.5 then the construct model of the latent variable has a good validity.

Table 3. AVE

Indicator	AVE
KP	0.625293
KK	0.742793

K 0.75148

KPL 0.652978

LP 0.689053

From table 3 It is known that the AVE value of all the variables latent > 0.5 Then it can be said the construct model of the latent variables have good validity. Value of the coefficient of determination of the Model 1 is 0.888 or by 88.8%, meaning the exogenous latent variable of service quality, customer trust, commitment, to explain the endogenous latent variable of customer satisfaction of 88.8% while the remaining 11.2% is described by other variables not included in the research. Value of the coefficient of determination of the Model 2 is 0.906 or by 90.6%, meaning the exogenous latent variable of service quality, customer trust and commitment and customer satisfaction is able to explain the endogenous latent variables customer loyalty of 90.6% while the remaining 9.4% is explained by other variables not included in the research. Table 3 shown Estimate for path coefficients

Table 3. Estimate for path coefficients

Indicator	AVE
K->KPL	0.950654
K->LP	0.927756
KK->KPL	0.015397
KP->KPL	-0.038638
KP->LP	0.072415
KPL->LP	0.050901

So for the equation of the model as follows:

a. Model 1

$$Y = \gamma_1 KP + \gamma_2 KK + \gamma_3 K + C$$

$$Y = -0,038KP + 0,015KK + 0,950K + C$$

b. Model 2

$$Y = \gamma_1 KP + \gamma_2 KK + \gamma_3 K + \gamma_4 KPL + C$$

$$Y = -0,038KP + 0,015KK + 0,950K + 0,050 KPL + C$$

4.2. Model Inner

Below is the result of an inner model PLS (*Part Least Square*) :

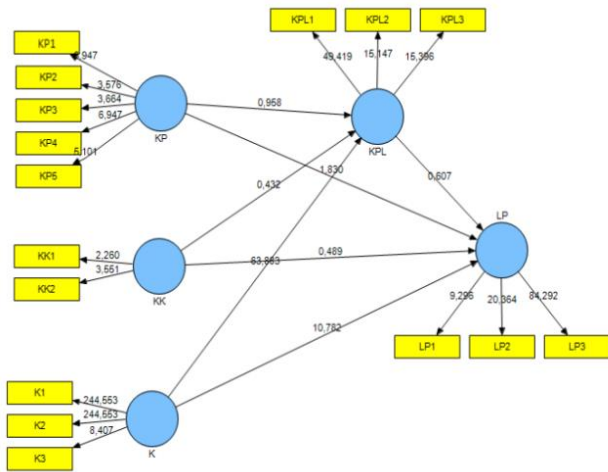


Figure 3. Inner model

a. *Goodness Of Fit* model 1

$$GOF = \sqrt{\frac{\text{communality}}{n} \times R^2}$$

$$GOF = \sqrt{\left(\frac{0,625+0,742+0,751+0,652}{4}\right) \times 0,888} = 0,784$$

b. *Goodness Of Fit* model 2

$$GOF = \sqrt{\frac{\text{communality}}{n} \times R^2}$$

$$GOF = \sqrt{\left(\frac{0,625+0,742+0,751+0,652+0,689}{5}\right) \times 0,906} = 0,791$$

Based on the calculation of GOF values on models 1 and 2 obtained values of 0.784 and 0.791 and large value which means that the model PLS made can be said overall prediction model good.

c. **Hypothesis testing of model 1 (the influence of latent variable service quality, customer trust, and commitment to customer satisfaction)**

- Hypothesis of service quality (H1)
The t value of the service quality is $0,957 < 1,96$ then accept H_0 means there is no influence between the service quality to customer satisfaction
- Hypothesis of customer trust (H2)
The t value of the customer trust is $0,4323 < 1,96$ then accept H_0 means there is no influence between the customer trust to customer satisfaction
- Hypothesis of commitment (H3)
The t value of commitment is $63,88 > 1,96$ then reject H_0 means there is an influence between the commitment to customer satisfaction

d. **Hypothesis testing of model 1 (the influence of latent variable service quality, customer trust, and commitment towards customer satisfaction to customer loyalty)**

- Hypothesis of service quality (H4)
The t value of the service quality is $1,833 < 1,96$ then accept H_0 means there is no influence between the service quality to customer loyalty.
- Hypothesis of customer trust (H5)
The t value of the customer trust is $0,516 < 1,96$ then accept H_0 means there is no influence between the customer trust to customer loyalty.
- Hypothesis of commitment (H6)

The t value of commitment is $39,56 > 1,96$ then reject H_0 means there is an influence between the commitment to customer loyalty.

• Hypothesis of customer satisfaction (H7)

The t value of customer satisfaction is $0,607 < 1,96$ then accept H_0 means there is no influence between the customer satisfaction to customer loyalty.

5. Conclusion

In the results of the study acquired that on the outer model of the loading factor value of the indicator is able to explain all the variables due to the value of all the > 0.5 . The validity testing of the construct model, unknown to the construct model of the latent variable has a good validity due to the AVE value of all the latent variables > 0.5 . The value of coefficient of determination of model 1 is 0.888 or 88.8%, meaning that the exogenous latent variable is the quality of service, the confidence of consumers and the commitment to explain the endogenous latent variable that is consumer satisfaction of 88.8%. In Model 2 the value of coefficient of determination of the Model 2 is 0.906 or at 90.6%. From the hypothesis test results that from Models 1 and 2 that have a significant influence is the commitment variable, while other variables have no effect. From the measurement goodness of fit acquired that the Model 1 and 2 is said to be a good overall model prediction.

Acknowledgements

In future research, it is required strategy in variable sales and development of strategy management as a guideline in improving batik sales service. It is also necessary to pay attention to consumer behaviour in determining the next variable.

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