## ANALYSIS TAILOR WORKER PERFORMANCE IN FASHION INDUSTRY CASE STUDY: BOGOR AND YOGYAKARTA

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## ABSTRACT

The development of fashion in Indonesia is growing rapidly by many varieties of trends that coming from Europe and Korea, especially in Bogor as city near capital region and Yogyakarta as etnic fashion centre in Indonesia. The purpose of this research are; (1) To identify tailor performance in fashion industry; (2) To compare training need analysis between Bogor and Yogyakarta. The primary source of data comes from SME's owner, employees, supplier, customers, and everyone who connected in fashion industry business in Bogor and Yogyakarta. Secondary data obtained from the literature books, journals, and websites. Data were analyzed using MANOVA and descriptive analysis with SPSS software to process the results of the questionnaire. This research resulted the analysis of the tailors to develop their businesses in fashion industry.

Keywords: Fashion Industry, Performance, Training Need, MANOVA.

## 1. INTRODUCTION

The fashion world especially apparel industry is growing very fast, without exception in Indonesia. The development of the fashion industry in Indonesia is marked by many annual

event fashion shows that always give attraction either domestic or foreign designers, such as Indonesia Fashion Week, Jakarta Fasion Week, and Jogja Fashion Week.

According to the Ministry of Commerce, Republic of Indonesia (2015) the development of fashion in Indonesia has increased significantly in recent decades. The value of export fashion products in Indonesia increased to US \$ 11.78 billion during the period of 2013 and US \$ 8.47 billion on January-July 2014.

The increasing of fashion industry development in Indonesia cause most of Indonesian people to choose to pursue this field. Table 1 shows the development of the number of workers at medium and large garment industry in Indonesia.

|    | Table 1. The progress of Clothing mutistry workers in mutilesia |         |         |         |         |             |  |  |
|----|---|---------|---------|---------|---------|-------------|--|--|
| No | Type of Industry  | 2010    | 2011    | 2012    | 2013    | Trend (%)   |  |  |
| 1  | The apparel industry (convection) on textiles                   | 449,871 | 422,001 | 497,133 | 469,107 | 2.94        |  |  |
| 2  | The apparel industry (convection) of the skin                   | 4,570   | 4,129   | 3,925   | 3,500   | -8.16       |  |  |
| 3  | Tailoring and manufacture of custom apparel                     | 1,013   | 42,864  | 1,417   | 677     | -36.96      |  |  |
| 4  | Manufacture of textile clothing accessories                     | 9,303   | 10,095  | 26,031  | 33,907  | 62.05       |  |  |
| 5  | Manufacture of leather clothing accessories                     | 6,503   | 24,021  | 8,462   | 9,161   | -0.15       |  |  |
| 6  | Manufacture of knitted garments                                 | 45,405  | 46,103  | 51,327  | 44,968  | 0.80        |  |  |
| 7  | The apparel industry embroidery                                 | 4,748   | 5,583   | 4,608   | 3,998   | -6.83       |  |  |
|    |   | 11 0 7  | • • /   |         | •       | : 1 (201 1) |  |  |

Table 1. The progress of Clothing Industry Workers in Indonesia

Source: Ministry of Industry of Republic of Indonesia/www.kemenperin.go.id (2014)

Table 1 shows that there are seven kinds of garment industry in Indonesia. The number of workers absorbed in the fashion industry is fluctuative annualy. Textile and clothing accessories industry are kinds of industry that has a continuous development trend, otherwise tailoring and cloth manufacturing business of custom apparel decrease to 36.96%.

Either small, medium, or large fashion industry entrepreneur should be able to address the global development fashion to keep this business sustainability. The fashion industry development can lead some positive and negative impacts for a business, either labor, raw materials supply, or quality to meet many customer demand. So it takes a special study that can be used as a reference for the fashion industry business owners to follow the developments in the fashion industry.

Yogyakarta is a city of ethnic fashion in Indonesia, where batik became one of the hallmarks of this city. Each year Yogyakarta often hold a fashion show in some places, while Bogor is an area adjacent to the capital city of Indonesia, and tailor in Bogor become partners for young designers in Jakarta, so it will never be separated in the fashion world. Therefore it is important to do research on these cities in improving fashion industry in Indonesia.

The growth of fashion industry in Indonesia could not be separated from the tailor's role in improving the performance and the need for human resource development. The performance assessment is one solution in assessing the success of an organization, and to develop human resources it is important to know the needs will tailor training. Thus, in this paper not only discussing performance but also tailor training needs analysis.

Objective study of this research is:

- 1. To identify the difference performance of tailor in fashion industry between Bogor and Yogyakarta.
- 2. To compare training need analysis in fashion industry between Bogor and Yogyakarta

# 2. LITERATURE REVIEW

# 2.1 Employees' Performance

It can seem surprising that performance is so widely discussed in today's business environment. Mangkunagara (2007, p.9) reveals that employee performance is the result of the quality and quantity of work accomplished by an employee in performing their duties in accordance with the responsibilities given to him. Therefore, it is concluded that job performance is the result of work (output) of both quality and quantity of work achieved human resources in periods of time. The measurement for worker performance has been revealed in many studies. Nawawi (2006) defined performance as things that are done and not done by an employee in carrying out tasks. Nawawi (2006) stated the performance has 5 dimensions to be operational, there are; 1) Quality. The degree to which the process or result of carrying out an activity approaches perfection, in term of either conforming to same ideal way of performing the activity or fulfilling the activity's intended purpose 2) Quantity. The amount produced, expressed in such terms as dollar value, number of units, or completed activity cycles.3) Timeliness. The degree to which an activity is completed, or a result produced, at the earliest time desirable from the standpoints of both coordinating with the outputs of others and maximizing the time available for other activities.4) Attendance. Presence and activity during present in the workplace. 5) Cooperate. The ability to work harmoniously with others to achieve common goals

# 3. METHODOLOGY

# 3.1 Data Collections

The type of research is quantitative with using primary data. Questionnaire with *Likert* type scale has been spread in two location Yogyakarta and Bogor. Sampling techniques using purposive sampling which means tailors who has been worked for more than one year. Confirmatory factor analysis (CFA) using SPPSS 22.00 has been used to validate the data. In doing CFA, Hair et al. (2010, h.117) set the value loading factor of 0.6 as the cutting point. Factor analysis was also conducted to assess the variables would be included in subsequent Before conducting factor analysis, first performed analysis analyzes. the Kaiser\_Meyer\_Olkin (KMO) and Bartlett's Test of Sphericity (BTS). Value of KMO  $\ge 0.5$ (Hair et al., 2010: 105) and the significance of BTS> 0.05 (Hair et al., 2010, p. 105), is needed for the analysis. For reliability test the consistency was measured using Cronbach's Alpha coefficients. The consistency of the answers indicated by the high Cronbach's Alpha with a value between 0.8 to 1.0 considered good reliability, the Alpha value between 0.6 to 0.79 are categorized reliability is acceptable (Hair et al., 2010, h.636).

The results of the factor analysis of performance that consists of five dimensions: quantity, quality, timeliness, attendance, cooperate. The results of the test showed validity for quantity only three items were used that statement; 1) I always set a target in the works for 1 week 2) I have always been able to do the work on target for 1 week 3) I can do a job if there are additional orders (orders) within 1 week. On the dimension of quality 3 items statements used,1) I always maintain the neatness, cleanliness, and order at work, 2) I am responsible for errors sewing that I did by suturing the request owner / boss, I'm always open to other people's opinion about my work , 2 items on the timeliness dimension statement is used, I always finish my work targets on time (1 week), I could finish the job targets before the expiration of the time (less than 1 week). In attendance dimension 2 items used as the statement 1) I have always present and from work on time, 2) level of my presence in the workplace is high. In cooperate performance dimeion 3 items were used 1) the responsibility of the team, 2) clear division of tasks between friends 1 team in doing the work according to target, I used to help with the work friends 1 team when my job is done.

The empirical model for this paper as follows.

KU123+ KS12KT4+ JW12+ KE12+KT123=  $\beta_0 + \beta_1$  Location

Where location refers to Bogor dan Yogyakarta, KU123 refers to quantity performance dimension, KS12KT4 refers to quality performance dimension, JW12 refers to timeliness performance dimension, KE12 refers to attendance performance and KT123 cooperate performance dimension.

## 3.2 Data Analysis

# 3.2.1 MANOVA

MANOVA made to the number of dependent variables is more than one (metric or interval) and the independent variables were the number one or more categories of more than two groups. For multivariate test procedures of MANOVA to be valid, must met the assumptions 1)observations must be independent, 2) the variance-covariance matrices must be eqal for all treatment groups,3) the set of dependent variables must follow a multivariate normal distribution. In category two groups using T-test. Test T-test will be conducted after analysis of MANOVA.

## **3.2.2 Descriptive Analysis**

Descriptive analysis was used the need of training analysis between Bogor and Yogyakarta. SPSS 22.0 for windows was used to run the analysis.

# 4. EMPIRICAL RESULTS

Table 1 report due to normal distribution as MANOVA requirements Box's M test was used to evaluate the result of normal distribution. From table 1 the point of Box's M test is 28.604 with F 1,786 and significance 0.031. This results failure to meet MANOVA requirements but still robust due to there are none of outliers.

| Table 2 Box's M test Results                               |           |  |  |  |
|--|-----------|--|--|--|
| Box's Test of Equality of Covariance Matrices <sup>a</sup> |           |  |  |  |
| Box's M  | 28,604    |  |  |  |
| F  | 1,786     |  |  |  |
| df1  | 15        |  |  |  |
| df2  | 26718,679 |  |  |  |
| Sig.   | ,031      |  |  |  |

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + location

Source: Proceed Data (2016)

Table 3 report the multivariate test of independent variable to all dependent variables. From SPSS 22.00 shows wilks' Lamda sig 0.000 . therefore there are correlations between all dependent variables (KU123, KS12KT4, JW12, KE12, KT123) and independent variable.

| Multivariate Tests <sup>a</sup> |                    |         |                       |               |          |      |  |
|---------------------------------|--------------------|---------|-----------------------|---------------|----------|------|--|
| Effect                          |                    | Value   | F                     | Hypothesis df | Error df | Sig. |  |
| Intercept                       | Pillai's Trace     | ,994    | 2725,159 <sup>b</sup> | 5,000         | 83,000   | ,000 |  |
|                                 | Wilks' Lambda      | ,006    | 2725,159 <sup>b</sup> | 5,000         | 83,000   | ,000 |  |
|                                 | Hotelling's Trace  | 164,166 | 2725,159 <sup>b</sup> | 5,000         | 83,000   | ,000 |  |
|                                 | Roy's Largest Root | 164,166 | 2725,159 <sup>b</sup> | 5,000         | 83,000   | ,000 |  |
| Location                        | Pillai's Trace     | ,158    | 3,121 <sup>b</sup>    | 5,000         | 83,000   | ,012 |  |
|                                 | Wilks' Lambda      | ,842    | 3,121 <sup>b</sup>    | 5,000         | 83,000   | ,012 |  |
|                                 | Hotelling's Trace  | ,188    | 3,121 <sup>b</sup>    | 5,000         | 83,000   | ,012 |  |
|                                 | Roy's Largest Root | ,188    | 3,121 <sup>b</sup>    | 5,000         | 83,000   | ,012 |  |

# Table 3. Multivariate Tests

a. Design: Intercept + location

b. Exact statistic

Table 4 reports the equal variance of dependent variables to the group. All the variables are equal , the significance more than 0.05 , therefore meet the MANOVA requirements.

| Levene's Test of Equality of Error Variances <sup>a</sup> |       |     |     |      |  |  |  |
|---|-------|-----|-----|------|--|--|--|
|   | F     | df1 | df2 | Sig. |  |  |  |
| KU123   | ,624  | 1   | 87  | ,432 |  |  |  |
| KS12KT4   | 3,937 | 1   | 87  | ,050 |  |  |  |
| JW12  | ,232  | 1   | 87  | ,631 |  |  |  |
| KE12  | 1,843 | 1   | 87  | ,178 |  |  |  |
| KT123   | ,498  | 1   | 87  | ,482 |  |  |  |

# Table 4. Equality of variances tests

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + location

Table 5 report the results the implications of location to all dependent variables. The results shows only quality dimensions (KS12KT4) have significance difference between location and performance dimensions. F test point is 13,892 with sig 0.000. Adjusted R squared are 12.8%.

## Table 5. Test between-subject effects

|                 |                    | Type III Sum of    |    |             |          |      |
|-----------------|--------------------|--------------------|----|-------------|----------|------|
| Source          | Dependent Variable | Squares            | df | Mean Square | F        | Sig. |
| Corrected Model | KU123              | ,479 <sup>a</sup>  | 1  | ,479        | 1,690    | ,197 |
|                 | KS12KT4            | 2,095 <sup>b</sup> | 1  | 2,095       | 13,892   | ,000 |
|                 | JW12               | ,021°              | 1  | ,021        | ,071     | ,791 |
|                 | KE12               | ,293 <sup>d</sup>  | 1  | ,293        | 1,516    | ,222 |
|                 | KT123              | ,076 <sup>e</sup>  | 1  | ,076        | ,312     | ,578 |
| Intercept       | KU123              | 699,955            | 1  | 699,955     | 2469,472 | ,000 |
|                 | KS12KT4            | 1004,432           | 1  | 1004,432    | 6660,054 | ,000 |
|                 | JW12               | 770,134            | 1  | 770,134     | 2540,112 | ,000 |
|                 | KE12               | 805,776            | 1  | 805,776     | 4167,966 | ,000 |
|                 | KT123              | 790,788            | 1  | 790,788     | 3237,253 | ,000 |
| Location        | KU123              | ,479               | 1  | ,479        | 1,690    | ,197 |
|                 | KS12KT4            | 2,095              | 1  | 2,095       | 13,892   | ,000 |
|                 | JW12               | ,021               | 1  | ,021        | ,071     | ,791 |
|                 | KE12               | ,293               | 1  | ,293        | 1,516    | ,222 |
|                 | KT123              | ,076               | 1  | ,076        | ,312     | ,578 |
| Error           | KU123              | 24,660             | 87 | ,283        |          |      |
|                 | KS12KT4            | 13,121             | 87 | ,151        |          |      |
|                 | JW12               | 26,377             | 87 | ,303        |          |      |
|                 | KE12               | 16,819             | 87 | ,193        |          |      |
|                 | KT123              | 21,252             | 87 | ,244        |          |      |
| Total           | KU123              | 740,556            | 89 |             |          |      |
|                 | KS12KT4            | 1046,778           | 89 |             |          |      |
|                 | JW12               | 809,500            | 89 |             |          |      |
|                 | KE12               | 839,250            | 89 |             |          |      |
|                 | KT123              | 826,333            | 89 |             |          |      |
| Corrected Total | KU123              | 25,139             | 88 |             |          |      |
|                 | KS12KT4            | 15,216             | 88 |             |          |      |
|                 | JW12               | 26,399             | 88 |             |          |      |
|                 | KE12               | 17,112             | 88 |             |          |      |
|                 | KT123              | 21,328             | 88 |             |          |      |

# **Tests of Between-Subjects Effects**

a. R Squared = ,019 (Adjusted R Squared = ,008)

b. R Squared = ,138 (Adjusted R Squared = ,128)

c. R Squared = ,001 (Adjusted R Squared = -,011) d. R Squared = ,017 (Adjusted R Squared = ,006)

e. R Squared = ,004 (Adjusted R Squared = ,008)

Table 6 figure out about the difference means between between Bogor and Yogyakarta on quality performance dimension. It shows Bogor is higher quality performance than Yogyakarta, the means Bogor quality performance dimension is 3.54 higher than Yogyakarta which is only 3.23, and the means difference 0.31 are significance on 0.0000.

| Table 6. Results independent sample T-test         |                |      |                     |       |                     |  |  |
|--|----------------|------|---------------------|-------|---------------------|--|--|
| Variable   | Respondent (N) | Mean | Mean<br>Differences | Т     | Sig. (2-<br>tailed) |  |  |
| Quality Dimension (KS12KT4)                        | 50             | 3.54 |                     |       |                     |  |  |
| Bogor<br>Quality Dimension (KS12KT4)<br>Yogyakarta | 39             | 3.23 | 0.31                | 3.727 | 0,000               |  |  |

Source: Proceed Data (2016)





Figure 1 shows Bogor tailors training needs. From 50 tailors, there are 11 tailors or 17.74% tailors choose practice making patern as an exercise that most needed tailors. There are 10 tailors or 16.13% tailors choose seewing techniques and there are seven tailors need to add their ability to make tuxedo.



Figure 2. Training Need Analysis In Yogyakarta Location

Figure 2 figure out about Yogyakarta tailors training needs. They different with Bogor tailors. Bogor tailors training needs are practice making patern, seewing techniques, make a tuxedo,

etc, but most of the tailors in Yogyakarta no need training and only 21.543% or 3 persons said if they need to learn about design.

# 5. CONCLUSION

The studies difference analysis and training need show that tailor in Yogyakarta still need the training about product quality, due to the lower perception about quality performance than Bogor area. the growth of fashion industry in Indonesia has to be inline with the increasing of human resource capacity. To be a winner in the competition tailor has to met the standard product quality.Government has set SNI as a standard in fashion apparel quality, and has to be applied by tailors (www.kemendag.go.id) Training related about making pattern and design ar currently is urgently required by the tailors. Therefore beside of making training about product quality, the owner or designer need to train tailor in making pattern and design

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