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THE LEVEL OF WAGE AND LABOR PRODUCTIVITY IN HOTEL INDUSTRY: AN ANALYSIS

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Abstract

Wage a phenomenon that happen today is high wage and high competitiveness. Wage theory that was developed by Rees (1973) and Katz (1980) explain that wage cannot only be seen only as a production cost but also as a part of an effort to increase the labor prosperity and motivation. This theory is a wage efficiency theory, which stated that company's revenue can increase despite paying wage above the market wage equilibrium. Even though here the two experts had calculated the problem of labor's quality but they have not reach empirical testing by developing certain model. Therefore, the researchers saw this gap as an opportunity to unravel the phenomena happening to labor and make an effort to develop an empirical model to see the influence of wage to productivity and variable that can measure the quality of labor and other variables that affect wage and productivity simultaneously. The factors used are the difference in individual characteristic, human capital, and quality of work life. The approach of this research is constructivism approach through quantitative analysis technique with simultaneous equation system. Analysis unit in this research is labor in hospitality industry. Estimation results of research shows that education, training, experience, work hour and productivity have significant positive influence to wage, while age and work status is not significant. Quality of work life, and wage have significant positive influence to productivity, while education, experience, age and work status have no significant influence. Important finding from research that training has significant influence to productivity but negatively. Overall, findings of this research show that positive effect of training to productivity will be bigger in organization that willing to invest in work environment that support the labor.

Keywords: Human Capital, Hotel Industry, Labor Productivity, Quality of Work Life, Wage

1. Introduction

Wage phenomena that happen today is high wage high competitiveness. Wage theory that was developed by Rees (1973) and Katz (1980) explain that wage cannot only be seen only as a production cost but also as a part of an effort to increase the labor prosperity and motivation. The rise in wage will increase labor's morale and prosperity. The rise in wage is also able to increase motivation and productivity of labor. This theory is a wage efficiency theory which stated that company's revenue can increase despite paying wage above the market wage equilibrium. The reason is that wage rise can increase work motivation, minimize labor moving cost, reduce the dominating bargain power of labor union, while attracting more quality labor (Katz, 1980).

Even though the two experts had calculated the problem of labor's quality but they have not reach empirical testing by developing certain model. Therefore from wage efficiency theory which stated that there is a strong connection between wage and productivity, and then the fact that the experts have not reach empirical testing on quality of labor by developing certain model, so the researchers saw this gap as an opportunity to unravel the phenomena happening to labor and make an effort to develop an empirical model to see the influence of wage to productivity and variable that can measure the quality of labor and other variables that affect wage and productivity simultaneously. Previous studies have stated that beside wage, motivation or someone's urge, to pick or work in tourism sector, is influenced by various factors. Other than external factor like work environment, leader, leadership and other, it's also influenced by internal factor that reside in everyone such as character, education level, past experience, wish or hope for the future (Kossen, 1987).

Moreover, the result of Peshave and Gujarathi (2014) stated that influence of work practice that was adopted from hotel industry have positive effect to worker's productivity. But productivity management system must be designed to focus on work practice with the purpose to increase worker's overall productivity. Hotel management must provide "Monitory Benefits" (salary, wage, overtime and intensive) and "Worklife Balance" (Weekly day off).

Other than that study shows that nowadays productivity and quality of work life is regarded as main booster for company's performance. In the last few years, Quality of Worklife played a key role in increasing productivity of labor in many companies and big companies. QWL factor, work satisfaction, organization's commitment and team spirit are regarded as an important factor in organization's productivity and performance (Koonmee, 2010).

Quality of Worklife reveal how important appreciation to human in its work environment. Therefore, important role of work quality is by changing the work climate so that the organization, in a technically and humane way lead to a better quality of worklife (Luthans, 1995). Result of Naude (2010)'s dissertation reveal how important free time is by showing its relation to other life domain which lead to quality of worklife. With better quality of worklife come more productivity, efficiency, and benefit.

Productivity of labor per work hour is one of the crucial determinants. Low productivity of labor will have serious implication to international competitiveness and sector growth rate. Hence productivity of labor will also influence competitiveness in international tourism market (Dwyer, 2000).

Harisson (2008) stated that the growth of labor's productivity is the only way to increase living standard in long term, and real wage is the most direct mechanism to transfer the benefit of productivity growth.

While the other variables that influence productivity and labor's wage had been researched by previous study, which, one of it said that work hour is a factor that influence wage and productivity. The more work hour done by labor in economic activity then the wage or labor's return received will also get bigger. Cataldi *et al.* (2011)'s research in Belgium investigated the relation between work hour, wage and productivity. Results of the research shows that average wage per hour in company are not significant to part-time job. Other than that age variable of labor also quite determine success in doing a job, whether it's physical or nonphysical. Generally, old labor has weak and limited physical strength, while young labor has strong physical strength (Blanchard and Thacker, 2004).

There is also relation between work status with wage and productivity, in which Ward *et al.* (2001) studied about contracted worker system management dilemma, research shows that worker with contracted worker status is not deeply involved into company's investment, but the worker's productivity increases according to wage received. Next Wiens and Hill (2002)'s research shows that companies will allocate fewer resource for training and skill for contracted worker compared to permanent worker. Furthermore, according to human capital approach, many other factors affect wage and productivity from Becker (1976)'s study shows that difference in income come from difference of productivity between male and female labor. Next Blanchard and Thacker (2004) stated that work experience and training is a determinant of income, while according to Polachek (2004) difference in wage can be explained by individual characteristic related to productivity, like education level.

Therefore based on phenomena, theory and various recent study results this research will study further and show that high and low of wage is influenced by productivity, which means that both variable affect each other. Thus this research will use simultaneous equation model and also introduce other variable that influence both which is human capital variable, work hour variable, work status variable and what's being a novelty in this research is introducing Quality of Work life variable from labor in hospitality industry. This is one of the novelties from this research remembering that this kind of research generally stops at how big the influence from individual characteristic and human capital characteristic to wage is received by labor. This research will focus to see the influence of wage and productivity of labor especially in 3-star hotel to 5-star hotel as its population. The reason is because star hotels had fulfilled requirements needed such as physical requirement, form of service given, labor qualification, amount of room and others. By analyzing individual characteristic, socio demographic condition, human capital and Quality of Worklife (QWL) hopefully problem regarding wage and its influence to wage productivity in hospitality industry in Palembang can be revealed.

2. Literature Review

2.1. Wage Efficiency Theory

Wage Efficiency Theory stats that productivity depends on wage. If wage decreased, then so productivity and company's profit will decrease especially if productivity loss is bigger than the wage decrease. Theoretically, if there exist an economy with identical company with production function (Katz, 1980):

$$Q = a F [e (w), L] \quad (1)$$

Where: e is effort or efficiency whose value depends on wage; L is employment opportunity; a is technology factor.

2.2. Productivity Theory

Productivity is relation between how much output produced and how much input needed to produce that output (Blocher, 2000). While according to Adam (1981) productivity is comparison between achieved result to role and labor divided by time. According to Giffin (2003) productivity of labor is basically a partial productivity, because it just divides output with one kind of input, which is labor. So, productivity of labor is comparison between total output to total labor. Measurement of productivity is as follow:

$$\text{Work Productivity} = \frac{\text{Output}}{\text{Input}} \quad (2)$$

2.3. Human Capital Theory

Human capital refers to process related to training, education and other professional initiative in order to increase worker's knowledge, finesse, skill, values, and social asset which will result in worker's satisfaction and performance, and in the end company performance (Becker, 1964).

Human capital is a concept explaining that human in organization and business is a valuable and essential asset, which has contribution to development and growth, just like physical asset for example machine and work capital (Schultz, 1971). According to Nerdrum (2001) human capital includes knowledge regarding academic test, which is acquired by education, finesse is skill to work to fulfill practical needs.

2.4. Quality of Work life Theory

According to Cascio (1992) there are two ways to see the quality of worklife. One of the ways is a set objective and organization practice conditions. Another point of view is through quality of worklife with employee perception of safety, satisfaction and development. According to Walton (1975) QWL is a measure on the effectiveness of organization in responding to employee needs. Walton (1975) states that there are 7 criteria of quality of work life, as follows:

1. Adequate and fair compensation
2. Safe and healthy environment
3. Development of human capacities
4. Growth and security
5. Social integration
6. Constitutionalism
7. Social relevance

3. Methods

This research uses constructivism paradigm approach, which is a paradigm that is almost the antithesis of understanding that lays observation and objectivity in finding a reality or science. This paradigm views social science as a systematic analysis on the socially meaningful action through direct and detailed observation on the social behavior related to creating and taking care or managing their social life (Bogdan, 1975).

This study will look for factors that influence wage and productivity of labor in hotel industry in Palembang. The research unit of analysis is the labor that works in three-star to five-star hotel in Palembang. Based on the data from Department of Culture and Tourism in 2015, there are 17 hotels in Palembang within the criteria with up to 1550 labors employed. It can be said that the population in this research is 1550 people. From every hotel, there are 10 departments, such as, Front Office Department, Housekeeping Department, Food & Beverage Service Department, Kitchen Department, Marketing Department, Accounting Department, Purchasing Department, Engineering Department, Security Department, and Personnel Department.

To select the sample, the sampling method is conducted twice. Firstly, simple random sampling is used to select sample from the 17 hotels. Secondly, proportionate stratified random sampling is used to select the sample from 10 departments. Formula developed by Isaac and Michael (1981) is used in simple random sampling, the formula is as follows:

$$z = \frac{3,841 \times 1,550 \times 0.5 \times (1 - 0.5)}{(0.05)^2(1,550 - 1) + 3.841 \times 0.5 \times (1 - 0.5)}$$

$z = 307.97$

in which:

χ^2 = The table value of *chi square* for certain λ ($\chi^2 = 3,841$ significance level of 95%) with $dk = 1$, the error level of 1%, 5%, 10%; P = proportion in population = 0.5; d = Accuracy / Degree of accuracy (0.05); Z = Total sample; N = Total population (2,088 labors)

To analyze the collected data econometric model of simultaneous equation model is used. Simultaneous equation model is model with more than one regression equation that are dependent to one another (Gujarati, 2003).

As previously mentioned, labors are supplied based on the wage that is viewed by the labor demand. Labor demand is based on the wage compared to productivity. The labor supply is also determined by the wage and the characteristics of the labor itself. Labor company provides wage based on the labor productivity and the labor also expects their payment is equal to their productivity. The relationship between wage and productivity is as follows:

$$W = \delta_0 + \delta_1 P \quad (3)$$

$$P = \gamma_0 + \gamma_1 W \quad (4)$$

This shows that wage and productivity influences one another. The variables that influence wage and productivity are socio demography characteristics such as, age, ethnic, the number of dependent family member, job status and human capital variable such as education, training and work experience, working hours and quality of work. Below is the model from the theory and previous study results:

$$W = \alpha_0 + \alpha_1 Edu + \alpha_2 Trn + \alpha_3 Exp + \alpha_4 Age + \alpha_5 Sts + \alpha_6 Tme + \delta_1 P + \varepsilon_1 \quad (5)$$

$$P = \beta_0 + \beta_1 Edu + \beta_2 Trn + \beta_3 Exp + \beta_4 Age + \beta_5 Sts + \beta_6 QWL + \gamma_1 W + \varepsilon_2 \quad (6)$$

Model identification in simultaneous equation is an important aspect to consider in parameter estimation process and further economic analysis. Identification problem means that the structural equation of parameter estimation can be obtained from the reduced form estimate coefficient. To find the reduce form the two equations need to be solved simultaneously to find the value (Gujarati, 2003).

$$W = \lambda_0 + \lambda_1 Edu + \lambda_2 Trn + \lambda_3 Exp + \lambda_4 Age + \lambda_5 Sts + \lambda_6 Tme + \lambda_7 QWL + \varepsilon_1 \quad (7)$$

$$P = \mu_0 + \mu_1 Edu + \mu_2 Trn + \mu_3 Exp + \mu_4 Age + \mu_5 Sts + \mu_6 QWL + \mu_7 Tme + \varepsilon_2 \quad (8)$$

3.1. Three stages least Squares (3 SLS)

Method used to estimate the regression function in this research is three stages least square (3 SLS). Three stages least square is a method that can be applied to all equations in the model and gives result to all parameter simultaneously. In specific equation, using 3 SLS is more efficient than 2 SLS. The condition of the equation used in 2 SLS and 3 SLS is just identified (Baltagi, 2008).

3.2. Likert Scale

Likert scale is used to measure the quality of work life (OWL) because this variable is the value of satisfaction of the employee on their work life. Likert scale is used to measure the behavior, opinions and perception of an individual or a group on the social symptom. The measurement is conducted by giving a respondent a list of statements that they have to answer with different value for each answer. The quality of work life in this research is built on 9 dimensions and 58 questions given to 308 respondents.

3.3. Validity test

Validity test is used to see the feasibility of statement list in defining a variable. Data testing is used by correlating each score for each question to the total score.

3.4. Reliability Test

Reliability is a measure that shows whether the measuring instruments used in the behavior study is reliable as a measuring tool, measured by its consistency of estimation results over a period of time if the phenomenon measured is unchanged (Sharpe *et al.* 2008). Reliability test will be tested using Alpha Cronbach technique.

4. Results

4.1. Result of Validity and Reliability Test

Validity and reliability test in this research used to examine statement item in variable Quality of Worklife (QWL). Variable QWL consist of 58 statement originated from 9 QWL dimensions. In this research validity and reliability test performed twice, the first validity test performed to obtain the value of r for each item. The result of reliability test is 0.964 for the value of Alpha Cronbach, it's higher than 0.90, means that perfect reliability and suggesting that all items are reliable and all test is internally consistent with strong reliability.

The result of first validity test shows 55 item of 58 item has $r > 0.25$ means 55 statement item is valid to measuring the variables to be studied, but there is 3 statement item has $r < 0.25$. Alpha Cronbach value in second reliability test is 0.965 which higher than 0.90 means that perfect reliability and suggesting that all items are reliable and all test is internally consistent with strong reliability and the result of validity test of 55 statement shows the value of r in all statement higher than 0.25, it means that all statement is valid to be used as variables to be studied.

4.2. Likert Scale in Variable Quality of Worklife

One of the main objectives of this research is to observe whether employees in 3-star to 5-star hotel is satisfied with the quality of their work-life. The nine dimensions of Quality of Worklife are (1) health and safety (2) Economic and Family (3) Social (4) Rewards (5) Self Actuation (6) Knowledge (7) creativity and aesthetics (8) management and (9) Leisure time. The highest percentage of 9 dimensions in QWL is 77.1% for health and safety dimension, it means that the employees are satisfied with their safety and clean work environment, the work they do was not make they stress, and they have the chance to stay healthy.

The second highest dimension is self-actuation with 74.3%, and this percentage means that the employees find that their job is suitable for their potential, and their skill is can be explored. Furthermore, the employee found that their boss and management is care about what they were doing, offering the opportunity to do higher responsibility job and chance to give new ideas. The third highest dimension is knowledge with 73.6%; it means that the employee feels that the education program, the new standard workshop is ways to increasing the company performance. The employee also feels that the company is educating them to be more professional and help them to learn the skill needed for their job.

The fourth highest dimension with 72.8% is reward, and it means that the employee feels respected by their boss, their management and their colleagues in their workplace and rewarded based on their performance. And they feel that the guest satisfaction of their hotel service is an achievement, they also feel comfortable with their uniform and respected for it.

The fifth highest dimension is leisure time with 72.4%, and it means that the employee has time to rest, to recreation and to exercise to balance their life. The sixth dimension is creativity and aesthetics with 70.3% and it means that the employee feels that their workplace is boosting them to express their creativity to designing a beautiful and comfortable workplace. The seventh dimension with more than 70% result is social dimension with the 72.3% QWL value, means that the employee has a good relation, effective communication, togetherness among their colleagues in their workplace and they also have spare time to socialize with people outside their workplace.

Two dimensions with less than 70% QWL value are economic with 69.6% and family with 67.5%. It means that the employee is less satisfied with the standard and procedure

assigned by the management and the democratic space in the management less wide open, the employee is also less satisfied with the given workload management.

The next dimension is economic and family means that employee is less satisfied with their salary. The employee feels that their job is less flexible for them to make extra money, and they also feel that the hotel is less care about their prosperity. And also the employees feel that the hotel is less care about the employee family welfare, and the workplace is too far from their home and their children school.

4.3. The Estimation Result of Wage Model Using 3 SLS Method

Wage (W) model approach analyzed in this research is directly asked to the respondent. While the independent variable is education (Edu), Training (Trn), Experience (Exp), Age (Age), Occupation State (Sts), Working Hours (Time) and Productivity (P) the coefficient value for estimation result of wage model using 3 SLS is shown in this function (Table 1)¹:

Table 1. Estimation results of wage model using 3 SLS method

	Coefficient	Std Error	Prob.
Constant	-44.392***	6.2675	0.0000
Edu	1.0974***	0.1915	0.0000
Trn	0.1896***	0.0418	0.0000
Expr	0.0383***	0.0116	0.0010
Age	0.1250	0.0958	0.1926
Sts	0.1615	1.0754	0.8807
Tme	0.0792***	0.0206	0.0001
P	0.3919***	0.0709	0.0000
N	308		
F-statistics	38.7		
R ²	0.39		

Note: *, **, *** represent the significance level at 10%, 5% and 1%, respectively.
 Descriptions: W=Wage, Edu=Duration of Education, Trn=Number of training, Exp=Number of experience, Age=Age, Sts=Employment status D=1 permanent employee, D=0 temporary employee, Tme=Working Hours, P=Productivity.

The estimation results of wages model for 3 SLS method. It is found that 5 variables affect the wages. Education (Edu) has a positive effect of 109.73% (significant at 1%). Education (Edu) variable has a positive and significant impact on wages means that the higher the education level, the higher wage rate. It reasonable, because the level of education related to the knowledge, perception, and behavior, rising wages in accordance to increasing the level of education is an attempt to rewarding the academic achievement of an employee, and thus the employee will be eager to expand their knowledge.

Training (Trn) and Experience (Exp) has positive and statistically significant effect. Training (Trn) variable has a positive and significant effects on wages means the frequency of training undertake the higher wage rate. This means the increase in the frequency of training will have an impact on increasing the number of wages paid. Experience (Exp) variable has a positive and significant impact on the wage of an employee means that more experience, the higher the wages rate. It means that if the employee has more experience, then wages must be increased. The effect of experience variable relatively low, the different rating of the hotel, different work standard will also be affecting the wage rate, therefore experience variable cannot be applied fully to the current situation.

Working hours (tme) variable has a positive and significant effect on wages, it means the higher working hours, the higher reward the employee received. It shows that the more time employee devoted to work in the hotel, the more the wages they will receive equal to the hours

¹ For details, see the Appendix.

they have devoted. However, the percentage of working hours is relatively low, due to other factors such as unpaid overtime wage where the employee only received the basic wage.

The productivity (P) variable has a positive and significant effect on wages; it means that the increased employee productivity will follow by the increase of wage received. It is consistent with the theory and previous research result that there is a strong relationship between wages and labor that productivity is positive affects to the wages received by the employee.

The estimation results of wage model with 3 SLS method show that employment (sts) and Age (Age) have no statistically significant effect on wage rate. Employment status is not effecting the wage rate. The findings indicate that the permanent status of the employee still does not have an impact on the increase in the employee wage rate.

The regression equation obtained the coefficient of determination (R2) that is equal to 0.39 means that 39.0493% variation of the dependent variable is determined by the value of the independent variable. Estimation result from the models shows that the adjusted R-square of 0.376%, it means that the independent variable can explain the dependent variable of 37.62% and the remaining 62.38% is explained outside the model equations.

4.4. The Estimation Result of Productivity Model Using 3 SLS Method

The estimation result of productivity model using 3 SLS method describe in the following equation:

Table 2. Estimation results of productivity model using 3 SLS method

	Coefficient	Std Error	Prob.
Constant	76.430***	4.2231	0.0000
Edu	0.0619	0.1734	0.7211
Trn	-0.0680*	0.0365	0.0627
Expr	-0.0085	0.0100	0.3938
Age	-0.0930	0.0818	0.2563
Stst	1.4333	0.9301	0.1238
QWL_R	0.1122***	0.0369	0.0024
W	0.3002***	0.0454	0.0000
N	308		
F-statistics	14.37		
R ²	0.19		

Notes: *, **, *** represent the significance level at 10%, 5% and 1%, respectively. Descriptions: W=Wage, Edu=Duration of Education, Trn=Number of training, Exp=Number of experience, Age=Age, Sts=Employment status D=1 permanent employee, D=0 temporary employee, Tme=Working Hours, QWL_R=Quality of Worklife, P=Productivity.

The estimation result of productivity model using 3 SLS method found two variables have a positive and significant effect on productivity variable, which are quality of work life (QWL_R) and wage (W). The quality of work life (QWL_R) has a positive and significant effect on the productivity, which means the higher satisfaction value of their work environments related to nine QWL dimension will result in higher the employee productivity.

Wage (W) also has positive and significant effect in productivity indicating that the higher wage rate the higher productivity will be produced. It shows that the main instrument to motivate and to increase the employee productivity is by increasing their wage. Correspond to the theory and previous research findings that there is strong relationship between wage and employee productivity, that wage has positive effect on employee productivity.

Furthermore, the estimation result for productivity model using 3 SLS method found three variables not significantly affecting the productivity variable: Education (Edu), Experience (Exp) and employment status (STS).

Education (Edu) variable have a positive but not significant effect on productivity means that the enhancement employee education have no effect in increasing productivity. Experience (Exp) variable have a negative and not significant effect on productivity. Similarly, variable age has negative and not significant effect on productivity. Employment status (Sts) variable has positive and not significant effect on the productivity means that even though the change of employment status does necessarily improve labor productivity. In contrast with the contract, casual, daily or weekly employment status, this employee status even makes workers more productive so that they can still work at the hotel.

Furthermore, the estimation results of productivity mode using 3 SLS method show the negative and not significant effect of experience (Exp). This is an important finding in this study because of the experience effect on productivity, but its influence is inversely proportional to productivity. It means that if experience increased the productivity will decreases, or high productivity will be yield despite the lack of experience. Another variable that is found to be negative but significant is the number of training (Trn) received by the employees. It indicates that the increase in the number of training decreases the productivity. This may be due to the improper job field training that disrupts the main work of the employee of this matter.

The estimation result of the model shows the adjusted r-square of 17.33% indicating that independent variable can only explain the dependent variables for 17.33% and the rest of 82.67% could be explained by other variables outside the model.

4.5. Wage Model Analysis

According to estimation result for wage model using 3 SLS method, Education (Edu) variable has a positive and significant effect to wage. It is reasonable because the level of education is related to knowledge, perception, and behavior therefore when the level of education is higher. It will be followed by increasing in the wage rate. Even more rising wages in accordance to increasing in the level of education is an attempt to rewarding the academic achievement of an employee, and thus the employees will be eager to expand their knowledge. This research result is supported by the Polachek (2004), Tansel and Bircan (2004) and Blunch (2008).

Subsequently, training (Trn) variables has a positive and significant impact on wages means the increase in training frequency will follow by the increase in the wage rate. This means the increase amounting to training it will have an impact on increasing a number of wages paid. This is consistent with research Polachek (2004), Elia (2010), Fleisher *et al.* (2011).

Experience (Exp) variable has a positive and significant impact on wages means more experience the employee, the higher wages they receive. This means that if the employee has more experience, then wages must be increased. The research result related to experience variables is consistent with research by Dustmann (2003).

The results of this study related to the education training and experience variable is according to the theory of human capital refers to the process associated with training, education and other professionals initiatives in order to improve the level of knowledge, skills, abilities, values, and social assets of the employees which will lead to satisfaction, employee performance, and ultimately on company performance (Becker, 1964).

Working hours (Tme) variable has a positive and significant impact on wages means more number of hours devoted the higher wages. It suggests that the more time employee devoted working in the field work, the more their contribution to the hotel the higher wage the will receive equal to the time they had sacrifice. The research result is consistent with the research results by Figueroa and Melendez (1993), Cataldi *et al.* (2011).

The productivity (P) variable has a positive and significant impact on wages means increasing productivity, the higher wages received by employees. This is consistent with the theory of productivity where there is a relationship between how much output is produced and how many inputs required producing that output (Blocher, 2000). Increased productivity can be achieved by minimizing all sorts of costs included in utilizing human resources (do the right thing) and increases the maximum output (do the right thing) (Rajashree, 2013). The results also support previous researches by Hellerstein *et al.* (1999), Van Biesebroeck (2011), Bande *et al.* (2004), Cashell (2004) and Bernhard *et al.* (2013).

Furthermore, the estimation results for wage model using 3 SLS method found two variables has the positive and not significant effect on the wage variable, its age variables, and Employment status variable. Age did not have an effect on wage increases, and this result is not consistent with Ehrenberg and Smith (1988), Heckman and Pages (1976) and Lincoln (2008) research. From the observation in this research examine that increasing age does not necessarily will increase the employee wage, where the hotel prioritizing the skills and work by staff and did not take age as a basis for remuneration.

Employment status (Sts) variable has no significant impact on wages, the result finding of realities on the ground found that the permanent status of the employee has no impact on the increase in labor costs. This can happen because the wage system in the hotel made labor with permanent status; the wages tend to show a stable trend rather than increased, so despite long working period, the wages are not increasing. These results are not in line with research conducted by Picchio (2006).

4.6. Productivity Analysis Model

The estimation results of productivity model using 3 SLS method shows two variables has a positive and significant impact on productivity variable is the Quality of Work Life (QWL) variable and wages (W) variable. Quality of Life Working variable has positive and significant impact on productivity means the higher employee satisfaction value of employee to its work environments associated with 9 dimensions of QWL namely in health and safety, economic and family, social, reward, self-actualization, knowledge, creativity and aesthetics, management and Leisure then productivity will be higher. The results support the Walton (1975) about the QWL is defined as a balance between the desire and interest towards corporate social responsibility. The results of this study are also consistent with the results of research Horst *et al.* (2014) Santercole (1993), French *et al.* (1990), Luthans (1995), Lau and May (1998), Jewell and Siegall (1998) Kondalkar (2009) and Naude (2010), which states that the QWL has strong effect on employee productivity. The quality of work life related to the high level of satisfaction of individuals who are enjoying his work in the organization. The quality of work life is feelings of employees towards its work, its family, and organizations that lead to the increasing growth and profitability of the organization. The employee who has a good feeling going to work means they are happy to do his job which will lead to increased productivity work environment.

Furthermore, wages (W) variable has a positive and significant impact on productivity means higher wage rate, the productivity will increase. It can be indicated that the main motivation instrument to increase the productivity of employee is by increasing their wage. When the wages are high, and then people able to fulfill their needs so that they can devote their concentration on work and they can meet the expected results. The results also support previous research Hellerstein *et al.* (1999), Van Biesebroeck (2011), Bande *et al.* (2004), Cashell (2004) and Bernhard *et al.* (2013).

The estimation results of productivity model using 3 SLS method, there are four variables did not significantly affect the productivity variable is the Education (Edu) variable, experience (Exp) variable, Age (Age) variable and Employment Status (Sts) variable. Education (Edu) variable has positive, but not significant effect on productivity means that with the improvement level of education does not necessarily affect the increase in productivity. It is not in line with the research results of Becker (1964). Experience (Exp) variable has negative and no significant effect on productivity. The results of this study were not aligned with the research results Blanchard and Thacker (2004), Fagbenle *et al.* (2012), Brown and Medoff (1989) and Acemoglu (1998) this states that work experience is reflected in the workers who have the work experience in other places before. The employee with more work experience is more skilled to do the job. The research found that in Palembang especially for the employee who works in the hospitality sector, education and experience has no significant effect on the productivity. Education and work experience is considered merely as kind of administrative requirements (diploma and certificate) in wage increases, but not necessarily both of these factors increase the productivity. Implying that education has been undertaken by prospective workers also has

to be provided with training to improve their skills. And then, the employees who are entering the labor market already have good education background and skill related to hospitality areas.

Another variable, Age has negative, and no significant effect on productivity indicated that if the age increases, then the agility of the employee will diminish. In another study, age is an approximation of the experience. Employment status (Sts) variable has positive, but not significant effect to productivity means that although the employee status was changed from temporary worker to permanent worker does not make the employee will have higher productivity, but rather the employee with contract status and casual or in other words daily or weekly worker, has higher productivity and show better performance at the hotel, they did this to have opportunity to keep work in hotel. This is not consistent with the results of research Ward *et al.* (2001) and Wiens-Tuers and Hill (2002).

The estimation results of productivity model using 3 SLS method found training variable has a negative but significant effect. This is a finding in the study because the training variable is inversely affecting the productivity proportionally. It means that if the training increases then productivity decreases, or high productivity despite less training. After further observation it was allegedly caused by improper training in the work area and disrupt the timing of the main work of the employee, therefore despite employee got a lot of substantial training, it will have no effect on the hospitality services. The further observation through interviews of the sample of research, workers who have worked a long time in that hotel experiencing burnout, even the training routine could not increase the productivity. Especially the wage received by the old worker does not significantly increase, so although they were equipped with new knowledge and skills, but not accompanied by wage increases, then it will not positively impact the productivity of the labor force. The findings of this study support the Menon (2010) where the research results stated that the respondents do not consider education and training become critical factors that affect productivity and more importantly is its individual characteristics.

Based estimation result, cross tabulation and observational studies result allegedly found that the main factors that have an adverse effect on the education and training to productivity in the workplace is the quality of the work environment, organizational structure and processes, assignment of workers in places that are not in accordance with their qualifications and the lack of incentives such as service money, payroll system that does not increase even though they have work for long time and the employment status of the employee as permanent employees. Moreover, the training material which not related to their work area, so that although they receive training, their productivity is still low. Another factor regarding delivery technique training materials must be improved to be understood by the trainees and can achieve the desired target of the training.

These findings have important policy implications that need for measures to enhance the positive effects of training on productivity. It seems that there is a closer relationship between education and training requirements in the labor market. Aside from providing students with theoretical knowledge, educational institutions must provide students with skills and knowledge. Overall, the findings of this study indicate that positive effects of training on productivity will be greater in organizations that are willing to invest in a supportive working environment. At the same time, workers also have to invest in improving their skills. In line with this hotel must consider increasing salary for long-term employees working at their hotel, because although the amount of training given quite a lot and done regularly, if not accompanied by an increase in welfare is certainly not going to improve the productivity of the workforce, mainly to housekeeping department and food and beverage service department the wages earned are comparatively lower than other departments whereas this department is spearheading hospitality services, where the services they are doing will be perceived directly by consumers.

5. Conclusion

Based on the research problem and research objective of this study are associated with the analysis of the results of research and discussion, can be concluded as follows:

Education variable, training variable, experience variable, working hour's variable and productivity variable have a positive and significant effect on the wages variable. Age variables and employment status variable do not significantly effect on the wage of the employee in the hospitality industry in Palembang.

The quality of Work Life (QWL) Variable and wage rates has a positive and significant effect on the productivity variable. Education, experience, age, and employment status variable did not significantly affect labor productivity in the hospitality industry in the city of Palembang. Meanwhile, the training variable has negative but the significant effect on productivity.

6. Recommendation

Related to the findings of the data analysis, research findings model, and theories used in research foundation, then there are some proposed suggestions as follows:

To increase the level of employee wage in the hospitality industry, workers are advised to increase their productivity as wages and productivity have an adamant relationship; the higher the productivity will increase wages. Besides employee are advised to continue to improve their working skill by improving education, training related to their areas of work and optimizing their working hours to produce maximum output at the hotel where they work, which will make management willingly to increasing the wages,

For hotel management party to increase the employee productivity, the hotel advised paying more attention to the level of employee welfare by giving them the decent wages and equivalent to the minimum wage policy set by the government. The hotel management also should pay close attention to wage of housekeeping department and the food and beverages management as the hospitality industry is a service industry where customer satisfaction on products services conducted by the hospitality workforce.

In order to increase labor productivity, the hotel management is also recommended to increase the frequency of training related to the employee areas. During the training employee should continue to receive their wages every month without any cuts, because if the management cuts on employee wages when the employee is following training then, training efforts will be futile and no positive impact on the workforce and of course will effect to the hotel performance.

To improve labor productivity, quality of work life (QWL) variable consisting of nine dimensions such as health and safety, economic and family, social, reward, self-actualization, knowledge, creativity and aesthetics, management and leisure time should be more considered, primarily on the management, economic and family dimensions. If nine of this dimension is improved then, the employee productivity will increase significantly.

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Appendix. Estimation results of wage and productivity model using 3 SLS method

	Coefficient	Std. Error	Prob.
C(1)	-44.39199***	6.267482	0.0000
C(2)	1.097399***	0.191504	0.0000
C(3)	0.189580***	0.041840	0.0000
C(4)	0.038281***	0.011557	0.0010
C(5)	0.125008	0.095839	0.1926
C(6)	0.161523	1.075443	0.8807
C(7)	0.079154***	0.020570	0.0001
C(8)	0.391915***	0.070904	0.0000
C(9)	76.43038***	4.223091	0.0000
C(10)	0.061928	0.173380	0.7211
C(11)	-0.067989*	0.036466	0.0627
C(12)	-0.008538	0.010005	0.3938
C(13)	-0.092955	0.081800	0.2563
C(14)	1.433338	0.930104	0.1238
C(15)	0.112203***	0.036880	0.0024
C(16)	0.300163***	0.045347	0.0000
R-squared	0.192164	Mean dependent variable	90.24211
Adjusted R-squared	0.173314	S.D. dependent variable	6.995473
S.E. of regression	6.360442	Sum squared residual	12136.57
Durbin-Watson stat	1.133493		

Notes: *, **, *** represent the significance level at 10%, 5% and 1%, respectively.