



FACTORS AFFECTING THE PERFORMANCE OF DRIVER : THE EXPERIENCE OF TRANSJAKARTA BUS DRIVER

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Abstract

A bus driver's performance is important in ensuring the smoothness and safety of a journey. By the end of year 2016 123,7 million people in province of Jakarta used the service of transjakarta. The study was conducted in 5 routes of Transjakarta. From a preliminary survey of 100 passenger using 15 questions to measure passengers' perceptions of the performance of transjakarta bus driver, it was concluded that 58% of respondents rated the performance of transjakarta bus driver in the province of Jakarta is still poor and needs to be improved. The purpose of this study is to examine the factors that affect performance of transjakarta bus driver, based on a series of theories and descriptions of what factors affect performance, compensation and self-efficacy were selected as two exogenous variables

Introduction

The most important resource of an organization is human resource (Aslam et al., 2015). High employee performance means an increase in efficiency, effectiveness or higher quality to complete a series tasks assigned to employee in organization (Rizal et al., 2014). According to Tannady & Sitorus (2017) human resources are a central and important component within an organization. The higher performance of human resources, will give higher performance of the organization. Therefore it is important for every organization to be supported by employees who have good ability in work and contribute to the organization or company where he works.

For any organization, its very important to achieve the organization's objective, organization need to effectively manage the human resource aspect of the organization, taken into cognizance one of the core aspect of resource management known as compensation management (Odunlami and Matthew, 2014) . There have been many previous studies that discuss how Compensation is proven to affect performance of employees in various industry sectors and organizations, such as local district government (Rizal et al., 2014; Njoroge & Kwasira, 2015), banking sector (Hameed et al., 2014; Aslam et al., 2015), food and beverage industry (Odunlami and Matthew, 2014), micro-finance industry (Nyaribo & Nyakundi, 2016), education sector (Wekesa & Nyaroo, 2013; Osibanjo et al., 2014) and transportation industry (Johnson et al., 2015).

Other variable that can affect the performance of employee is self efficacy. Self-efficacy is people's belief in their capabilities to perform in ways that give them control over events that effect their lives (Singh et al., 2009). Research conducted by Singh et al. (2009) shows that self-efficacy has a role in influencing performance of athletes. Mojavezi & Tamiz (2012) who studied 80 teachers at college in four different cities of Iran also concluded that self efficacy is one of the variables that affect performance of teacher. These two studies are also reinforced by research conducted by Muijs & Rejnolds (2001) which concludes that performance of employee is influenced by self-efficacy.

Depend on data from transjakarta.co.id, transjakarta has 15 main corridor, with total length of route is 230,9 kilometers. From cnnindonesia.com, by the end of year 2016 123,7 million people in province of Jakarta used the service of transjakarta. The study was conducted in 5 routes of Transjakarta. From a preliminary survey of 100 passenger using 15 questions to measure passengers' perceptions of the performance of transjakarta bus driver, it was concluded that 58% of respondents rated the performance of transjakarta bus driver in the province



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of Jakarta is still poor and needs to be improved. A bus driver's performance is important in ensuring the smoothness and safety of a journey (Ismail et al., 2015). The purpose of this study is to examine the factors that affect performance of transjakarta bus driver, based on a series of theories and descriptions of what factors affect performance, compensation and self-efficacy were selected as two exogenous variables. The study examined the effect of both partially and simultaneously from 2 exogenous variables to performance of bus driver.

Literature Review

Compensation

One way of management to address the issues of increasing work achievements, motivating and enhancing performances of workforces is compensation (Tannady&Sitorus, 2017). Dessler (2005) defines compensation as all forms of payments or rewards given to employees which arise from employment. Compensation takes either direct or indirect forms of payment and appreciation given from the organization to the workforces (Rijalu Negash.et.all, 2014). In other word, compensation is output and the benefit that employee receive in the form of pay, wages and also same rewards like monetary exchange for the employee's to increase the performance (Holt, 1993). According to Ivancevich and Glueck (1989) compensation is mostly equal to half of cash flow of the companies, but in the service sector it is more than half, and it is the major to attract the employee and motivate employee to increases the performance. Compensation includes expenses such as bonuses, profit sharing, overtime and rewards that includes monetary and non-monetary rewards such as house rent and car facility against hired services of employees (Wright et al., 2003).

Self Efficacy

Self concept reflects people's beliefs in their personal efficacy (Bandura, 1977). Self efficacy may be related to task based self esteem (Carson et al, 1997). Tjosvold and Tjosvold (1995) was stated that by developing and building self esteem, employees are able to increase their strength in light of frustations and get self-confirmation. Hence it can be seen that self efficacy plays an important role in changing and affecting an individual's behaviour (Cherian & Jacob, 2013). Several previous researches have proven that self efficacy is related to self control, resilience in the face of failure, the performance and task efforts, and the effective way of problem solving (Bandura, 1986; Gist & Mitchell, 1992; Hysong & Quinones, 1997; Prussia et. Al, 1998; Stajkovic & Luthans, 1998).

According to Bandura (1997) success in a realm is closely linked to self-efficacy. Higher self-efficacy in a realm is associated with good outcomes, ranging from greater job satisfaction and performance (Judge & Bono, 2001) and to better physical and mental health (Bandura, 1997). There has been a great deal of evidence which has linked the importance of employee self efficacy and his performance (Hill et al., 1987), ability to perform better as a team (Wood et al., 1990) and ability to acquire more skills (Mitchell et al., 1994). There have been a number of reviews which have examined the impact of self efficacy on employee performance, moreover previous studies have shown that self efficacy is integral part of performance and this factor contribute to a good service quality, effectiveness and efficiency in the workplace (Cherian & Jacob, 2013).

Performance

According to Mejza (1998) the degree of physical risk to life or property in a spesific time period is widely used to represent or define safety performance. According to Chow (1989) and Jovanis (1989) in Chang & Yeh (2005) stated that many factors determine the accident risk, namely human factors, vehicle factors, road factors, and environmental factors, and human factors or human error is commonly recognized as the major factor contributing to commercial vehicle accidents, hence many studies relating to safety problems of the transportation industries have had a driver focus (Chaterjee et al., 1994; Dionne et al., 1995; Arnold & Hartley, 2001). Professional drivers operate their commercial vehicles under pressure, directly or indirectly from their organization (Chatterjee et al., 1994). Driver failure should be viewed as the consequence of organizational factors rather than as the principle cause of a commercial vehicle-related accident (Chang & Yeh, 2005).



Research Model

Depend on paradigm was stated in previous regarding inter-relationship between discussed variables, thus this research design a research model as follows :

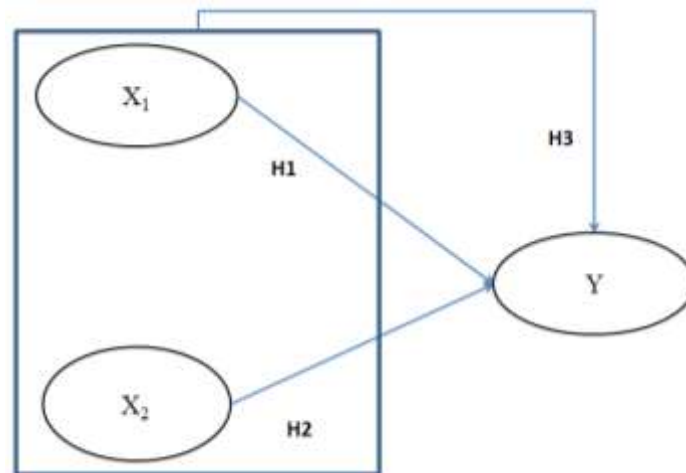


Figure 1. Research Model

Based on the structural model in Figure 1, the structure equation is $Y = \beta_1 X_1 + \beta_2 X_2 + e$, where "X₁" and "X₂" are the exogenous variable, "Y" is the endogenous variable, "P" is the path coefficient value and "e" is the error value of the indicator (Hair et al., 2010). Based on the phenomenon, theories and concepts that become a reference in this research and based on the framework of thought and the model of the research path, research hypothesis can be formulated as follows: (H₁) There is any influence of compensation to safety performance, (H₂) There is any influence of self efficacy to safety performance, and (H₃) There is any influence of compensation and self efficacy simultaneously to safety performance.

Research Methodology

This research use Structural Equation Modeling (SEM) technique developed by Sewall Wright (Wright, 1921). This technique is used to analyze the influence that exists among the factors that allegedly affect the safety performance. Causal variables studied in this research are compensation (X₁), self efficacy (X₂), and safety performance (Y).

X₁ utilizes two dimensions (financial and non financial) and six indicators (CO1-CO6). Variable X₂ utilizes three dimensions (magnitude, generality, strength) and ten indicators (SE1-SE10). Variable Y use three dimensions (discipline, amenities, accident) and nine indicators (PE1-PE9).

The population is a Transjakarta bus driver and passenger in the province of Jakarta, Indonesia, bus driver are requested to fill the questionnaire contained measurement variable of compensation and self-efficacy while the passenger are requested to fill the questionnaire contained measurement variable of performance. The sample size using Hair (2010) is 125 respondents of driver and same number of passenger, referring 25 numbers of indicators in questionnaire.

Questionnaire were designed using interval or likert scale measurement. The research instrument was tested by validity test, reliability test, normality test and analyzed by Structural Equation Modeling (SEM) method, which included confirmatory factor analysis (CFA), structural model testing, and path model diagram analysis (McDonald & Ho, 2002). Validity test in this research use construct validity (Tannady & Sitorus, 2017). According to Tannady & Sitorus (2017) using Pearson correlation, if r count has a value greater than r table, then the data can be declared valid. A construct or variable is said to be reliable if it gives a Cronbach Alpha value > 0.6 (Tannady & Sitorus, 2017). A data is said to satisfy the assumption of multivariate normality if the



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value of C.R (critical ratio), obtained from the multivariate kurtosis coefficient divided by the standard error does not exceed 2.58 (CR > 2.58) (Tannady & Sitorus, 2017).

Findings

This section describes the results of a series of tests, namely validity, reliability and normality test, and analysis results using SEM, if r arithmetic $\geq r$ table (2 sided test with sig 0.05) then the instrument or question variable correlated significantly to the total score of the variable (valid). Using degree of freedom (df) = n-2, identified r-table value 0.1757 validity and reliability test for each indicator can be seen in the following table:

Table 1. Result of Validity and Reliability Test

Variable of Compensation (Reliability Test : 0.712)		Variable of Self Efficacy (Reliability Test :0.628)		Variable of Performance (Reliability Test :0.754)	
Indicators	Validity Test	Indicators	Validity Test	Indicators	Validity Test
CO1	0,698	SE1	0,455	PE1	0,776
CO2	0,768	SE2	0,647	PE2	0,759
CO3	0,683	SE3	0,611	PE3	0,512
CO4	0,625	SE4	0,719	PE4	0,665
CO5	0,763	SE5	0,535	PE5	0,348
CO6	0,562	SE6	0,422	PE6	0,441
		SE7	0,315	PE7	0,475
		SE8	0,456	PE8	0,426
		SE9	0,630	PE9	0,510
		SE10	0,619		

The first step in data processing by using Lisrel is the data should be checked in advance whether the data is in normal condition or pass in the normality test, should CR value reflected on the recommended relative multivariate kurtosis value is less than 2.58, then the data is considered to have been meets the multivariate normality (McDonald & Ho, 2002).

Table 2. Result of Normality Test

Variable of Compensation		Variable of Self Efficacy		Variable of Performance	
Indicators	Normality Test	Indicators	Normality Test	Indicators	Normality Test
CO1	2,414	SE1	-2.172	PE1	-2.397
CO2	-2,822	SE2	-1.738	PE2	-2.148
CO3	1,151	SE3	-2.59	PE3	-2.744
CO4	-2,262	SE4	-1.173	PE4	-1.577
CO5	2,031	SE5	-1.447	PE5	-2.258
CO6	1,124	SE6	-2.759	PE6	-2.045
		SE7	2,221	PE7	-1.653
		SE8	2,557	PE8	-2.193
		SE9	-2,122	PE9	-2.879
		SE10	-2,250		

Score of relative Multivariate Kurtosis = 2,246

From the normality test table shows the value of Relative Multivariate Kurtosis 2,246 (value below 2.58), multivariate can be concluded that the indicator variable used normal distribution. Variable of compensation has one indicator CO2 that has Z score skewness above 2.58 so it can be stated not normally distributed so that it will be removed from further analysis, while 5 other indicators have Z score skewness below 2.58 otherwise normal will be used in further analysis. In variable of self-efficacy, there are two indicators SE6 and SE3 have Z score skewness above 2.58 so it can be stated not normally distributed, while 8 other indicators have Z score skewness below 2.58. In variable of performance, there are two indicators PE3 and PE9 have Z score skewness above 2.58, 7 other indicators have Z score skewness below 2.58 so it is stated normal.



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In SEM, each latent variable usually has several sizes or indicators. Latent variables with indicators are linked through measurement models in the form of factor analysis (Tannady & Sitorus, 2017). In this model, each latent variable is modeled as a factor that underlies the observed variables involved. In this study used several criteria of goodness of fit index that is absolute fit measures and incremental fit measures. Absolute measure is used to assess the overall suitability of the model. In this study used Chi Square, Probability, GFI and RMSEA statistics. While incremental fit measure is the measure used to compare the model produced with another model or base line model. The measurements used are AGFI, NFI, NNFI, CFI, IFI and RFI (Tannady & Sitorus, 2017). Based on the results of the analysis with the SEM model (Structural Equation Model), obtained the measurement results for CFA model of Compensation variable as in the following table:

Table 3. Result of CFA

No	Variable	Coefficient (Standardized) (Mean)	Estimation	T-Value (Mean)	Result
1	Compensation	0,68		7,24	Valid ¹ , Significant ²
2	Self-Efficacy	0,61		6,65	Valid ¹ , Significant ²

NOTE : 1. Coefficient Estimation > 0.50 = Valid, 2. T value > 1.96 : Significant

After several test conducted for model measurement, the following step is to verify structural model. There are two phases of this step, model adequacy test and hypotheses testing or path coefficients' significance test. Relationship among constructs of the research in the model can be shown with causal relationship of related constructs. This type of test is aimed to test whether the model is finely adequate with empirical data (collected samples). The main and alternative hypotheses can be written as follows. H₀: there is no significant difference between sample covariance matrix and estimated population covariance matrix. H₁: there is a significant difference between sample covariance matrix and estimated population covariance matrix. The hope of experimenter in this test is to accept H₀. It means there is an adequacy between theoretical model with empirical data. The table below consists of information about goodness of fit test's results.

Table 4. Goodness of fit Index Structural Model

Parameters	Result	Criteria
X ² (P)	236.38 (0.0000)	Good fit
GFI; RFI, NFI	0.8732; 0.8487; 0.8866	Marginal fit
IFI; CFI; NNFI	0.91; 0.93; 0.925	Good fit
RMSEA	0.0767	Good fit
AGFI	0.772	Poor fit

According to the structural model analysis which tests the effect of compensation on performance, obtained t value and regression coefficient are 7.24 and 0.68, respectively. The fact that t value > 1.96 and positive regression coefficient indicate the acceptance of the main hypothesis, then this test result show hypothesis 1 accepted. Analysis the effect of self-efficacy on performance, obtained t value and regression coefficient are 6.65 and 0.61, respectively, this test result show hypothesis 2 accepted. The R² value of 0.48 shows how compensation and self-efficacy can play a positive and significant role together to improve performance of Transjakarta Bus driver in province of Jakarta, Indonesia.

Conclusion & Recommendation

Partially and simultaneously all independent variables discussed in the study have a significant influence on the dependent variable. Hence, the management of Transjakarta necessarily take some considerations to establish policies regards compensation (financial and non-financial) and conduct any program that effectively elevate the self-efficacy of Transjakarta bus driver. Suggestions for further research is development of other variables, by



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using other approaches, can also be done on different objects, so that we can find new theory or concept.

References

- [1] Arnold, P. K., &Hartley, L. R. (2001). Policies and practices of transport companies that promote or hinder the management of driver fatigue. *Transportation Research Part F:Psychology and Behavior*, Vol. 4(1):1-17.
- [2] Aslam, A., Ghaffar, A., Talha, T., Mushtaq, H. (2015). Impact of compensation and reward system on the performance of an organization: an empirical study on banking sector of Pakistan. *European Journal of Business and Social Sciences*, Vol. 4(8):319-325.
- [3] Bandura, A. (1977). Self-efficacy : Toward a unifying theory of behavioral change. *Psychological Review*, Vol. 84:191-215.
- [4] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs. New Jersey : Prentice-Hall.
- [5] Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York : W. H. Freeman.
- [6] Carson, K.D., Carson, P.P., Lanford, H., Roe, C. W. (1997). The effects of organization-based self-esteem on workplace outcomes : an examination of emergency medical technicians. *Pub. Pers. Manage*, Vol. 26(1):139-155.
- [7] Chang, H. L., &Yeh, C. C. (2005). Factors affecting the safety performance of bus companies – The experience of Taiwan bus deregulation. *Safety Science*, Vol. 43:323-344.
- [8] Chatterjee, A., Cadotte, E., Stamatiadis, N., Sink, H., Venigalla, M., Gaides, G. (1994). Driver-related factors involved with truck accidents. *STC Project No. 23385-019*.
- [9] Cherian, Jacob., &Jacob, Jolly. (2013). Impact of Self Efficacy on Motivation and Performance of Employees. *International Journal of Business and Management*, Vol. 8(14):80-88.
- [10]Chow, G. (1989). Deregulation, financial distress, and safety in the general freight trucking industry. In:Leon, N. M., Ian, S. (Eds.), *Transportation Safety in An Age of Deregulation*. London : Oxford University Press.
- [11]Dessler, G. (2005). *Human Resources Management*.10th. Ed. Prentice-Hall.
- [12]Dionne, G., Desjardins, D., Laberge-Nadeau, C., Maag, U. (1995). Medical conditions, risk exposure, and truck drivers' accidents:an analysis with count data regression models. *Accident Analysis and Prevention*, Vol. 27(3):295-305.
- [13]Gist, M. E., &Mitchell, T. R. (1992). Self-efficacy : A theoretical analysis of its determinants and malleability. *Academy of Management Review*, Vol. 17:183-211.
- [14]Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010). *Multivariate Data Analysis*. New Jersey:Pearson.
- [15]Hameed, A., Ramzan, M., Zubair, H. M. K., Ali, G., Arslan, M. (2014). Impact of Compensation on Employee Performance (Empirical Evidence From Banking Sector of Pakistan). *International Journal of Business and Social Science*. Vol. 5(2):302-309.
- [16]Hill, T., Smith, N. D., Mann, M. F. (1987). Role of efficacy expectations in predicting the decision to use advanced technologies : The case of computers. *Journal of Applied Psychology*, Vol. 72:307-313.
- [17]Holt, Davis H. (1993). *Management : Concept and Practices*. New Jersey:Prentice Hall, Englewood Cliffs.
- [18]Hysong, S. J., &Quinones, M. A. (1997). The relationship between self-efficacy and performance : A meta-analysis. Paper presented at the twelfth Annual Conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.
- [19]Ismail, A. R., Abdullah, A. N. A., Abdullah, A. A., Deros, B. M. (2015). A Descriptive Analysis of Factors Contributing To Bus Drivers' Performances While Driving : A Case Study In Malaysia. *International Journal of Automotive and Mechanical Engineering*. Vol. 11:2430-2437.
- [20]Ivancevich, John M., Glueck, William F. (1989). *Foundations of Personnel/Human Management*. 21397-409.
- [21]Johnson, R. M., Reiley, David H., Munoz, Juan C. (2015). The War for the fare : How Driver Compensation Affects Bus System Performance. *Economic Inquiry*, Vol. 53(3):1401-1409.



INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

- [22] Jovanis, P. P. (1989). A system perspective on the effects of economic deregulation on motor carrier safety. In : Leon, N. M., Ian, S. (Eds.), *Transportation Safety in An Age of Deregulation*. London : Oxford University Press.
- [23] Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits-self-esteem, generalized self-efficacy, locus of control, and emotional stability – with job satisfaction and job performance : A meta-analysis. *Journal of Applied Psychology*, Vol. 86(1):80-92.
- [24] McDonald, R. P., & Ho, M. H. R. (2002). Principles and Practice in Reporting Structural Equation Analysis. *Psychological Methods*, Vol. 7(1):64-82.
- [25] Mejza, M.C. (1998). Evaluating motor carrier safety processes using data envelopment analysis. Ph.D. Dissertation. University of Maryland.
- [26] Muijs, R. D., & Reynolds, D. (2001). Teachers' beliefs and behaviors: What really matters. *Journal of Classroom Interaction*, Vol. 37:3-15
- [27] Njoroge, S. W., & Kwasira, J. (2015). Influence of Compensation and Reward on Performance of Employees at Nakuru County Government. *IOSR Journal of Business and Management*, Vol. 17(11):87-93.
- [28] Nyaribo, O. L. N., & Nyakundi, A. W. (2016). The Effect of Non-Financial Compensation on Employee Performance of Micro-Finance Institutions: A Case of Wakenya Pamoja Sacco, Kisii County, Kenya. *Imperial Journal of Interdisciplinary Research*, Vol. 2(6):103-126.
- [29] Odunlami, I. B., & Matthew, A. O. (2014). Compensation Management and Employees Performance in the Manufacturing Sector, A Case Study of a Reputable Organization in the Food and Beverage Industry. *International Journal of Managerial Studies and Research*, Vol. 2(9):108-117.
- [30] Osibanjo, O. A., Adeniji, A. A., Falola, H. O., Heirmsac, P. T. (2014). Compensation packages: a strategic tool for employees' performance and retention. *Leonardo Journal of Sciences*, Vol. 25:65-84.
- [31] Prussia, G. E., Anderson, J. S., Manz, C. C. (1998). Self-leadership and performance outcomes : The mediating influence of self-efficacy. *Journal of Organizational Behavior*, Vol. 19:523-538.
- [32] Rijalu Negash., Shimelis, Z., Reta, M. (2014). The effect of compensation on employees motivation: In Jimma University academic staff. *Journal of Business Management and Accounts*, 3(2):17-27.
- [33] Rizal, M. Idrus, M. S., Djumahir., Mintarti, R. (2014). Effect of compensation on motivation, organizational commitment and employee performance (studies at local revenue management in Kendari City). *International Journal of Business and Management Invention*, Vol. 3(2):64-79.
- [34] Singh, T. D., Bhardwaj, G., Bhardwaj, V. (2009). Effect of Self-Efficacy on the Performance of Athletes. *Journal of Exercise Science and Physiotherapy*. Vol. 5(2):110-114.
- [35] Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance : A meta-analysis. *Psychological Bulletin*, Vol. 124:240-261.
- [36] Tannady, Hendy., & Sitorus, Tigor. (2017). Role Of Compensation, Organization Culture, And Leadership On Working Motivation Of Faculty Member (Study Case: Universities In North Jakarta). *IOSR Journal of Business and Management*, Vol. 19(10)ver III:41-47.
- [37] Tjosvold, D., & Tjosvold, M. M. (1995). Cooperation theory, constructive controversy, and effectiveness : learning from crises. In Guzzo, R.A. & Salas, E, *Team effectiveness and decision making in organization* (pp. 79-112). San Fransisco : Jossey-Bass.
- [38] Wekesa, Jane N., & Nyaroo, S. (2013). Effect of Compensation on Performance of Public Secondary School Teachers in Eldoret Municipality Kenya. *International Journal of Scientific and Research Publications*, Vol. 3(6):1-4.
- [39] Wood, R., Bandura, A., Bailey, T. (1990). Mechanisms governing organizational performance in complex decision making environments. *Organizational behavior and human decision process*, Vol. 46:181-201.
- [40] Wright, P. M., Gardner, T. M., Moynihan, L. M. (2003). The impact of HR practices on the performance of business units. *Human Resource Management Journal*, Vol. 13(3):21-36.
- [41] Wright, S. (1921). Correlation and causation. *Journal of Agricultural Research*, Vol. 20: 557-585..