DAFTAR PUSTAKA

Arisandi, A., Herdiani, E. T., & Sahriman, S. (2019). Model Generalized Poisson Regression untuk Data Overdispersi pada Jumlah Penderita Demam Berdarah Dengue. *Journal of Theoretical Statistics and Its Applications*, 18(2), 123-130.

Cameron, A. C., & Trivedi, P. K. (1986). Econometric Models Based on Count Data: Comparisons and Applications of Some Estimators and Tests. *Journal of Applied Econometrics*, Vol. 1, 29-53.

Cameron, A. C., & Trivedi, P. K. (1998). *Regression Analysis of Count Data*. New York: Cambridge University Press.

Cantoni, E., & Zedini, A. (2011). A robust version of the hurdlemodel. *Journal of Statistical Planning and Inference*, 141(3), 1214-1223.

Greene, W. H. (2008). *Econometrics Analysis, 6th edition*. Prentice Hall, New Jersey.

Hardle, W. (1995). *Applied Nonparametric Regression*. United State: Cambridge University Press.

Hilbe, J. M. (2011). *Negative Binomial Regression (2nd ed.)*. New York, NY, US: Cambridge University Press.

Ismail, N., & Jemain, A. A. (2007). Handling Overdispersion with Negative Binomial and Generalized Poisson Regression Models. *Casualty Actuarial Society Forum*, Vol. 8, 367-394.

Jersey, G. G., Vajala R., & Swai P. K. (2015). On the assestment of various factors effecting the improvement in CD4 count of AIDS patient underhoing antiretro viral therapy using Generalized Poisson regression. *Journal of Applied Statistcs*, Vol. 42, 1291-1305.

Kutner, M. H., Nachtsheim, C. J., & Neter, J. (2004). *Applied Linear Regression Models. 4th ed*. New York: McGraw-Hill Companies Inc.

Lains, A. (2003). *Ekonometrika Teori dan Aplikasi*. Jakarta : Pustaka LP3ES Indonesia.

Long, J. S. (2008). *Regression Models for Categorical and Limited Dependent Variables*. California: Sage Publications Inc.

McCullagh, P., & Nelder, J. A. (1989). *Generalized Liner Model, second edition*. London : Chapman and Hall.

Mutiu, S. O., Olutayo, O. A., & Timothy, A. O. (2016). The Chi-Square Goodness-Of-Fit Test for a Poisson distribution: Application to the Banking System. *International Journal of Research*, 3(8), 448-455.

Seyed, E. S., Robiah, A., & William, G. (2012). *Hurdle negative binomial regression model with right censored count data*. Malaysia: Universiti Teknologi Malaysia.

Simarmata, R. T., & Ispriyanti, D. (2011). Penanganan Overdispersi pada Model Regresi Poisson Menggunakan Model Regresi Binomial Negatif. *Media Statistika*, 4(2), 95-104.

Sudjana. (2005). *Metode Statistika*. Bandung: Tarsito.

Supranto. (2009). *Statistik Teori dan Aplikasi. Jilid II*. Jakarta: Erlangga.

Winkelmann, R. (2008). *Econometric Analysis of Count Data 5th edition*. Berlin: Springer.

Zwilling, M. L. (2013). Negative Binomial Regression. *The Mathematica Journal*, Vol. 15, 1-18.

LAMPIRAN

Lampiran 1: Data Jumlah kasus DBD di Kota Makassar tahun 2018

No.	Kecamatan	Puskesmas	Y	X_1	X_2	X_3	X_4
		Pattingalloang	4	36.63	86.75	96.00	42.86
1.	Ujung Tanah	Tabaringan	11	44.47	83.63	93.90	69.57
		p. barrang lompo	5	33.04	85.14	83.96	40.74
		p. kodingareng	2	42.05	87.43	91.70	76.47
2.	Tallo Rappokalling	jumpandang baru	8	51.95	83.23	93.80	51.43
		Rappokalling	7	51.29	84.66	92.20	65.22
		kaluku bodoa	6	64.47	85.12	96.60	78.57
3.	Bontoala	Laying	3	66.50	86.26	93.10	57.14
		malimongan baru	2	61.40	88.10	100.00	77.78
4.	Wajo	Tarakan	6	60.15	85.93	96.80	37.70
		Andalas	5	69.44	94.05	96.20	40.00
5.	Ujung Pandang	Makkasau	5	79.56	91.06	94.20	55.56
6.	Makassar	bara-baraya	4	52.96	89.15	100.00	92.86
		maccini sawah	5	71.31	85.06	88.00	70.83
		Maradekaya	4	61.06	91.59	93.50	42.31
7.	Mamajang	Mamajang	4	62.69	87.94	63.60	150.00
		Cendrawasih	2	50.19	85.77	87.50	69.23
8.	Mariso	Dahlia	7	58.90	85.98	88.27	35.71
		Pertiwi	7	66.69	86.66	93.20	54.55
		Penambungan	7	73.45	85.69	87.20	12.90
9.	Tamalate	Tamalate	0	62.66	90.39	92.30	100.00
		Jongaya	9	57.12	87.56	97.20	150.00
		Barombong	15	42.55	82.95	92.80	75.00
		maccini sumbala	8	53.73	85.11	82.10	48.72
10.	Rappocin	kassi-kassi	3	78.29	92.16	92.90	91.67
		Mangasa	5	21.95	85.55	86.20	82.61
		minasa upa	5	59.02	94.09	94.50	35.71
		Ballaparang	14	47.96	83.53	18.00	46.00
11.	Panakkukkang	Batua	7	69.46	84.66	80.60	46.43
		Toddopuli	8	50.68	94.80	94.70	35.29
		Pampang	3	63.79	84.61	100.00	42.86
		Tamamaung	7	27.70	91.25	91.80	14.63
		Karuwisi	6	53.25	87.21	93.30	40.00
12.	Manggala	antang perumnas	3	73.58	85.63	94.70	45.45
		antang perumnas	9	48.96	91.13	83.30	52.94
		Tamangapa	7	66.61	89.67	94.50	35.42
		Bangkala	5	48.42	85.14	81.30	10.53
13.	Biringkanaya	Sudiang	8	53.00	85.19	85.70	76.47
		Bulurokeng	11	37.94	83.56	91.50	27.27
		sudiang raya	8	64.47	89.61	84.50	23.81
		Paccerakkang	1	80.51	85.55	82.80	77.78
14.	Tamalanrea	Tamalanrea	4	67.85	92.85	69.20	90.00
		tamalanrea raya	5	41.14	92.28	96.00	35.71
		Bira	1	63.61	87.82	87.10	25.00
		Antara	0	48.87	95.13	1.80	38.46
		Kapasa	0	82.49	86.94	92.30	50.00
	Rata-rata		**5.565**	**57.039**	**87.686**	**86.757**	**56.939**
	Jumlah		**256**	**2623.784**	**4033.568**	**3990.830**	**2619.190**

Lampiran 2: Uji Chi-Square untuk Distribusi Poisson

k	Fo	$Poisson$	Fe	$Fo - Fe$	$(Fo - Fe)^2/Fe$
0	3	0.00383	0.17612	2.82388	45.27694
1	2	0.02131	0.98016	1.01984	1.06113
2	3	0.05929	2.72740	0.27260	0.02725
3	4	0.10999	5.05953	−1.05953	0.22188
4	5	0.15303	7.03934	−2.03934	0.59081
5	8	0.17033	7.83509	0.16491	0.00347
6	3	0.15799	7.26733	−4.26733	2.50575
7	7	0.12560	5.77775	1.22225	0.25856
8	5	0.08738	4.01931	0.98069	0.23928
9	2	0.05403	2.48537	−0.48537	0.09479
11	2	0.01521	0.69978	1.30022	2.41585
14	1	0.00120	0.05523	0.94477	16.16212
15	1	0.00045	0.02049	0.97951	46.82422
Total	**46**				**115.68204**

```
> chi <- chisqtest(Y,pbar = T)
================================================
             Characteristics of Data
------------------------------------------------

 Minimum          :  0.000000
 Maximum          : 15.000000
 Mean             :  5.565217
 Variace          : 11.140097
 Std.Deviation    :  3.337678
 Display          :  2.001736
------------------------------------------------
            Pearson's Chi-squared test
------------------------------------------------

 Sum of residuals :   1.857102
 Chi-square Stat  : 115.682041
 Chi-square Table :  21.026070
================================================
```

Lampiran 3: Uji Linearitas Variabel Bebas (X) terhadap Variabel Respon (Y)

1. Untuk $y \sim x_{i1}$
   Diketahui:

$$
\begin{aligned}
n &= 46 \\
\sum Y &= 256 \\
\sum X &= 2623.784 \\
\sum XY &= 13869.38 \\
\sum Y^2 &= 1926 \\
\sum X^2 &= 158364.4
\end{aligned}
$$

   Penyelesaian:

$$
\begin{aligned}
b &= \frac{n\sum(XY) - \sum X \sum Y}{n\sum(X^2) - (\sum(X))^2} \\
&= \frac{(46 \times 13869.38) - (2623.784 \times 256)}{(46 \times 158364.4) - (2623.784)^2} \\
&= \frac{-33697.22}{400519.9} \\
&= -0.0841337 \\
SSR &= b\left[\sum XY - \frac{\sum X \sum Y}{n}\right] \\
&= (-0.0841337)\left[13869.38 - \frac{2623.784 \times 256}{46}\right] \\
&= 61.633 \\
SSE &= \sum Y^2 - \frac{(\sum Y)^2}{n} - SSR \\
&= 1926 - \frac{(256)^2}{46} - 61.633 \\
&= 439.6713 \\
SSPE &= \sum_k \left[\sum Y_k - \frac{(\sum Y_k)}{n}\right]
\end{aligned}
$$

$$\begin{aligned}SSPE = &((0-0)+(2-1)+(6-2)+(12-3)+(20-4)+(40-5)\\ &(18-6)+(49-7)+(40-8)+(18-9)+(22-11)+(14\\ &-14)+(15-15))\end{aligned}$$

$$SSPE = 171$$

$$\begin{aligned}SSLF &= SSE - SSPE\\ &= 439.6713 - 171\\ &= 268.6713\end{aligned}$$

$$\begin{aligned}MSR &= \frac{SSR}{p-1}\\ &= \frac{61.633}{1}\\ &= 61.633\end{aligned}$$

$$\begin{aligned}MSLF &= \frac{SSLF}{k-2}\\ &= \frac{268.6713}{13-2}\\ &= 24.42466\end{aligned}$$

$$\begin{aligned}MSE &= \frac{SSE}{n-p}\\ &= \frac{439.6713}{46-2}\\ &= 9.99253\end{aligned}$$

$$\begin{aligned}MSPE &= \frac{SSPE}{n-k}\\ &= \frac{171}{46-13}\\ &= 5.181818\end{aligned}$$

$$\begin{aligned}F_1 &= \frac{MSR}{MSE}\\ &= \frac{61.6330}{9.99253}\\ &= 6.167907\end{aligned}$$

$$\begin{aligned}F_2 &= \frac{MSLF}{MSPE}\\ &= \frac{24.42466}{5.181818}\\ &= 4.713531\end{aligned}$$

Tabel Anava

No.	Source of Varian	db	SS	MS	F
1.	Regression	1	61.634	61.634	6.168
2.	Error	44	439.671	9.993	
3.	Lack of fit	11	268.671	24.425	4.714
4.	Pure error	33	171.000	5.182	
5.	Total	45	501.304		

Nilai F_{hitung} (4.714) $>$ F_{tabel} (2.09) yang berarti variabel bebas x_{i1} pada data jumlah kasus demam berdarah di Kota Makassar tahun 2018 tidak memiliki hubungan linear dengan variabel respon y_i.

2. Untuk $y \sim x_{i2}$

   Diketahui:

$$
\begin{aligned}
n &= 46 \\
\sum Y &= 256 \\
\sum X &= 4033.568 \\
\sum XY &= 22271.02 \\
\sum Y^2 &= 1926 \\
\sum X^2 &= 354204.3
\end{aligned}
$$

   Penyelesaian:

$$
\begin{aligned}
b &= \frac{n\sum(XY) - \sum X \sum Y}{n\sum(X^2) - (\sum(X))^2} \\
&= \frac{(46 \times 22271.02) - (4033.568 \times 256)}{(46 \times 354204.3) - (4033.568)^2} \\
&= \frac{-8126.488}{23726.99} \\
&= -0.3424997 \\
SSR &= b\left[\sum XY - \frac{\sum X \sum Y}{n}\right] \\
&= (-0.3424997)\left[22271.02 - \frac{4033.568 \times 256}{46}\right] \\
&= 60.506 \\
SSE &= \sum Y^2 - \frac{(\sum Y)^2}{n} - SSR \\
&= 1926 - \frac{(256)^2}{46} - 60.506 \\
&= 440.7983 \\
SSPE &= \sum_k \left[\sum Y_k - \frac{(\sum Y_k)}{n}\right] \\
SSPE &= 171
\end{aligned}
$$

$$
\begin{aligned}
SSLF &= SSE - SSPE \\
&= 440.7983 - 171 \\
&= 269.7983
\end{aligned}
$$

$$
\begin{aligned}
MSR &= \frac{SSR}{p-1} \\
&= \frac{60.506}{2-1} \\
&= 60.506
\end{aligned}
\qquad
\begin{aligned}
MSLF &= \frac{SSLF}{k-2} \\
&= \frac{269.7983}{13-2} \\
&= 24.52712
\end{aligned}
$$

$$
\begin{aligned}
MSE &= \frac{SSE}{n-p} \\
&= \frac{440.7983}{46-2} \\
&= 10.01814
\end{aligned}
\qquad
\begin{aligned}
MSPE &= \frac{SSPE}{n-k} \\
&= \frac{171}{46-13} \\
&= 5.181818
\end{aligned}
$$

$$
\begin{aligned}
F_1 &= \frac{MSR}{MSE} \\
&= \frac{60.506}{10.01814} \\
&= 6.039644
\end{aligned}
\qquad
\begin{aligned}
F_2 &= \frac{MSLF}{MSPE} \\
&= \frac{24.52712}{5.181818} \\
&= 4.733304
\end{aligned}
$$

Tabel Anava

No.	Source of Varian	db	SS	MS	F
1	Regression	1	60.506	60.506	6.040
2	Error	44	440.799	10.018	
3	Lack of fit	11	269.799	24.527	4.733
4	Pure error	33	171.000	5.182	
5	Total	45	501.304		

Nilai F_{hitung} $(4.733) > F_{tabel}$ (2.09) yang berarti variabel bebas x_{i2} pada data jumlah kasus demam berdarah di Kota Makassar tahun 2018 tidak memiliki hubungan linear dengan variabel respon y_i.

3. Untuk $y \sim x_{i3}$

   Diketahui:

$$
\begin{aligned}
n &= 46 \\
\sum Y &= 256 \\
\sum X &= 3990.83 \\
\sum XY &= 22110.29 \\
\sum Y^2 &= 1926 \\
\sum X^2 &= 361061.7
\end{aligned}
$$

   Penyelesaian:

$$
\begin{aligned}
b &= \frac{n\sum(XY) - \sum X \sum Y}{n\sum(X^2) - (\sum(X))^2} \\
&= \frac{(46 \times 22110.29) - (3990.83 \times 256)}{(46 \times 361061.7) - (3990.83)^2} \\
&= \frac{-4579.14}{682114.1} \\
&= -0.006713158 \\
SSR &= b\left[\sum XY - \frac{\sum X \sum Y}{n}\right] \\
&= (-0.006713158)\left[22110.29 - \frac{3990.83 \times 256}{46}\right] \\
&= 0.6682715 \\
SSE &= \sum Y^2 - \frac{(\sum Y)^2}{n} - SSR \\
&= 1926 - \frac{(256)^2}{46} - 0.6682715 \\
&= 500.6361 \\
SSPE &= \sum_k \left[\sum Y_k - \frac{(\sum Y_k)}{n}\right] \\
SSPE &= 171 \\
SSLF &= SSE - SSPE
\end{aligned}
$$

$$
\begin{aligned}
SSLF &= SSE - SSPE \\
&= 500.6361 - 171 \\
&= 329.6361
\end{aligned}
$$

$$
\begin{aligned}
MSR &= \frac{SSR}{p-1} \\
&= \frac{0.6682715}{2-1} \\
&= 0.6682715
\end{aligned}
\qquad
\begin{aligned}
MSLF &= \frac{SSLF}{k-2} \\
&= \frac{329.6361}{13-2} \\
&= 29.96692
\end{aligned}
$$

$$
\begin{aligned}
MSE &= \frac{SSE}{n-p} \\
&= \frac{500.6361}{46-2} \\
&= 11.37809
\end{aligned}
\qquad
\begin{aligned}
MSPE &= \frac{SSPE}{n-k} \\
&= \frac{171}{46-13} \\
&= 5.181818
\end{aligned}
$$

$$
\begin{aligned}
F_1 &= \frac{MSR}{MSE} \\
&= \frac{0.6682715}{11.37809} \\
&= 0.05873319
\end{aligned}
\qquad
\begin{aligned}
F_2 &= \frac{MSLF}{MSPE} \\
&= \frac{29.96692}{5.181818} \\
&= 5.78309
\end{aligned}
$$

Tabel Anava

No.	Source of Varian	db	SS	MS	F
1	Regression	1	0.668	0.668	0.059
2	Error	44	500.636	11.378	
3	Lack of fit	11	329.636	29.967	5.783
4	Pure error	33	171.000	5.182	
5	Total	45	501.304		

Nilai F_{hitung} $(5.783) > F_{tabel}$ (2.09) yang berarti variabel bebas x_{i3} pada data jumlah kasus demam berdarah di Kota Makassar tahun 2018 tidak memiliki hubungan linear dengan variabel respon y_i.

4. Untuk $y \sim x_{i4}$

   Diketahui:

$$
\begin{aligned}
n &= 46 \\
\sum Y &= 256 \\
\sum X &= 2619.19 \\
\sum XY &= 14129.77 \\
\sum Y^2 &= 1926 \\
\sum X^2 &= 189410.3
\end{aligned}
$$

   Penyelesaian:

$$
\begin{aligned}
b &= \frac{n\sum(XY) - \sum X \sum Y}{n\sum(X^2) - (\sum(X))^2} \\
&= \frac{(46 \times 14129.77) - (2619.19 \times 256)}{(46 \times 189410.3) - (2619.19)^2} \\
&= \frac{-20543.22}{1852718} \\
&= -0.01108817 \\
SSR &= b\left[\sum XY - \frac{\sum X \sum Y}{n}\right] \\
&= (-0.01108817)\left[14129.77 - \frac{2619.19 \times 256}{46}\right] \\
&= 4.951883 \\
SSE &= \sum Y^2 - \frac{(\sum Y)^2}{n} - SSR \\
&= 1926 - \frac{(256)^2}{46} - 4.951883 \\
&= 496.3525 \\
SSPE &= \sum_k \left[\sum Y_k - \frac{(\sum Y_k)}{n}\right] \\
SSPE &= 171 \\
SSLF &= SSE - SSPE
\end{aligned}
$$

$$
\begin{aligned}
SSLF &= SSE - SSPE \\
&= 496.3525 - 171 \\
&= 325.3525
\end{aligned}
$$

$$
\begin{aligned}
MSR &= \frac{SSR}{p-1} \\
&= \frac{4.951883}{2-1} \\
&= 4.951883
\end{aligned}
\qquad
\begin{aligned}
MSLF &= \frac{SSLF}{k-2} \\
&= \frac{325.3525}{13-2} \\
&= 29.5775
\end{aligned}
$$

$$
\begin{aligned}
MSE &= \frac{SSE}{n-p} \\
&= \frac{496.3525}{46-2} \\
&= 11.28074
\end{aligned}
\qquad
\begin{aligned}
MSPE &= \frac{SSPE}{n-k} \\
&= \frac{171}{46-13} \\
&= 5.181818
\end{aligned}
$$

$$
\begin{aligned}
F_1 &= \frac{MSR}{MSE} \\
&= \frac{4.951883}{11.28074} \\
&= 0.4389679
\end{aligned}
\qquad
\begin{aligned}
F_2 &= \frac{MSLF}{MSPE} \\
&= \frac{29.5775}{5.181818} \\
&= 5.707939
\end{aligned}
$$

Tabel Anava

No.	Source of Varian	db	SS	MS	F
1	Regression	1	4.952	4.952	0.439
2	Error	44	496.352	11.281	
3	Lack of fit	11	325.352	29.577	5.708
4	Pure error	33	171.000	5.182	
5	Total	45	501.304		

Nilai $F_{hitung}\ (5.708) > F_{tabel}\ (2.09)$ yang berarti variabel bebas x_{i4} pada data jumlah kasus demam berdarah di Kota Makassar tahun 2018 tidak memiliki hubungan linear dengan variabel respon y_i.

Lampiran 4: Hasil Estimasi Parameter $\hat{\beta}$ dan $\hat{\psi}$ pada Regresi Binomial Negatif

```
> X <- cbind(x1,x2,x3,x4); bnr <- nb.rg(Y,X, iterasi = FALSE)
=====================================================
Iterasi : 31
-----------------------------------------------------
            Negative Binomial Regression
-----------------------------------------------------
          Estimasi Etd.Error  Z.value     Wald
Intercept  7.21308   1.70086  4.24085 17.98484 *
x1        -0.01310   0.00470 -2.79059  7.78739 *
x2        -0.05351   0.01957 -2.73376  7.47346 *
x3         0.00010   0.00347  0.02836  0.00080
x4        -0.00184   0.00220 -0.83367  0.69501
-----------------------------------------------------

Psi            :    0.10458
Est.Psi        :    6.09388
db             :   41.00000
log-likelihood : -113.80662
AIC            :  239.61324
MSE            :    8.38084
=====================================================
> dx  <- 1; fix <- ft[dx]
> for (i in 1:length(ft)){if(ft[i] < fix){
+ fix <- + ft[i];dx <- i}}
> md  <- data.frame(md[dx])
> rownames(md) <- c("Model fit :")
> colnames(md) <- c("")
> md

Model fit : y ~ x1 + x2
> X <- cbind(x1,x2); bnr <- nb.rg(Y,X, iterasi = F) # OKe
=====================================================
Iterasi : 31
-----------------------------------------------------
            Negative Binomial Regression
-----------------------------------------------------
          Estimasi Etd.Error  Z.value     Wald
Intercept  7.01184   1.67392  4.18888 17.54675 *
x1        -0.01356   0.00467 -2.90205  8.42192 *
x2        -0.05200   0.01954 -2.66097  7.08075 *
-----------------------------------------------------

Psi            :    0.10740
Est.Psi        :    5.84371
db             :   43.00000
log-likelihood : -114.03323
AIC            :  236.06647
MSE            :    8.44855
=====================================================
```

Lampiran 5: Uji Parsial Regresi Binomial Negatif

a. Hipotesis:
$H_0 : \beta_j = 0$
$H_1 : \beta_j \neq 0,\ j = 1, 2, \cdots, 5$

b. Statistik Uji:

$$W_j = \left(\frac{\hat{\beta}_j}{SE(\hat{\beta}_j)} \right)^2$$

c. Kriteria Penolakan:
Tolak H_0 jika $G^2 > \chi^2_{(p,\alpha)}$

d. Keputusan:

1. Untuk β_1:

$$\begin{aligned} W_1 &= \left(\frac{\hat{\beta}_1}{SE(\hat{\beta}_1)} \right)^2 \\ &= \left(\frac{-0.01310}{0.00470} \right)^2 \\ &= (-2.79059)^2 \\ &= 7.78739 \end{aligned}$$

2. Untuk β_2:

$$\begin{aligned} W_2 &= \left(\frac{\hat{\beta}_2}{SE(\hat{\beta}_2)} \right)^2 \\ &= \left(\frac{-0.05351}{0.01957} \right)^2 \\ &= (-2.73376)^2 \\ &= 7.47346 \end{aligned}$$

3. Untuk β_3:

$$\begin{aligned} W_3 &= \left(\frac{\hat{\beta}_3}{SE(\hat{\beta}_3)}\right)^2 \\ &= \left(\frac{0.00010}{0.00347}\right)^2 \\ &= (0.02836)^2 \\ &= 0.00080 \end{aligned}$$

4. Untuk β_4:

$$\begin{aligned} W_4 &= \left(\frac{\hat{\beta}_4}{SE(\hat{\beta}_4)}\right)^2 \\ &= \left(\frac{-0.00184}{0.00220}\right)^2 \\ &= (-0.83367)^2 \\ &= 0.69501 \end{aligned}$$

Untuk β_1 : $W_1 = 7.78739 > \chi^2_{(0.05,1)} = 3.841$, maka terima H_0
Untuk β_2 : $W_2 = 7.47346 > \chi^2_{(0.05,1)} = 3.841$, maka terima H_0
Untuk β_3 : $W_3 = 0.00080 < \chi^2_{(0.05,1)} = 3.841$, maka tolak H_0
Untuk β_4 : $W_4 = 0.69501 < \chi^2_{(0.05,1)} = 3.841$, maka tolak H_0

Lampiran 6: Pemilihan model terbaik untuk model regresi binomial negatif

No.	Model	AIC
1.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{1i} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_1 x_{i4})$	239.61324
2.	$\hat{\mu} = \exp(\beta_0 + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4})$	242.11973
3.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1} + \beta_3 x_{i3} + \beta_4 x_{i4})$	242.12985
4.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_4 x_{i4})$	237.61373
5.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3})$	238.06643
6.	$\boldsymbol{\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2})}$	**236.06647**
7.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1} + \beta_3 x_{i3})$	240.32830
8.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1} + \beta_4 x_{i4})$	240.12985
9.	$\hat{\mu} = \exp(\beta_0 + \beta_2 x_{i2} + \beta_3 x_{i3})$	240.87145
10.	$\hat{\mu} = \exp(\beta_0 + \beta_2 x_{i2} + \beta_4 x_{i4})$	240.13219
11.	$\hat{\mu} = \exp(\beta_0 + \beta_3 x_{i3} + \beta_4 x_{i4})$	245.82931
12.	$\hat{\mu} = \exp(\beta_0 + \beta_1 x_{i1})$	238.32846
13.	$\hat{\mu} = \exp(\beta_0 + \beta_2 x_{i2})$	238.89005
14.	$\hat{\mu} = \exp(\beta_0 + \beta_3 x_{i3})$	244.23756
15.	$\hat{\mu} = \exp(\beta_0 + \beta_4 x_{i4})$	243.87778