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# LAMPIRAN

**Lampiran 1:** Data Produk Penjualan Hijab Tahun 2015-2019

$t$	$z_t$	$t$	$z_t$	$t$	$z_t$
Januari 2015	37	Januari 2017	150	Januari 2019	385
Februari 2015	39	Februari 2017	135	Februari 2019	392
Maret 2015	42	Maret 2017	138	Maret 2019	395
April 2015	48	April 2017	145	April 2019	402
Mei 2015	41	Mei 2017	177	Mei 2019	467
Juni 2015	59	Juni 2017	186	Juni 2019	450
Juli 2015	52	Juli 2017	200	Juli 2019	488
Agustus 2015	57	Agustus 2017	225	Agustus 2019	490
September 2015	64	September 2017	256	September 2019	510
Oktober 2015	55	Oktober 2017	277	Oktober 2019	500
November 2015	67	November 2017	256	November 2019	511
Desember 2015	78	Desember 2017	260	Desember 2019	529
Januari 2016	62	Januari 2018	245		
Februari 2016	72	Februari 2018	239		
Maret 2016	89	Maret 2018	240		
April 2016	101	April 2018	261		
Mei 2016	100	Mei 2018	300		
Juni 2016	135	Juni 2018	350		
Juli 2016	149	Juli 2018	346		
Agustus 2016	137	Agustus 2018	376		
September 2016	155	September 2018	360		
Oktober 2016	146	Oktober 2018	365		
November 2016	139	November 2018	378		
Desember 2016	144	Desember 2018	382		

**Lampiran 2:** Output nilai ACF Data Penjualan Hijab Hasil *Differencing* Pertama**Autocorrelations For DIFF1**

Lag	ACF	T	LBQ
1	0.946488	7.33	56.48
2	0.895492	4.15	107.92
3	0.842148	3.11	154.20
4	0.785140	2.52	195.15
5	0.729656	2.13	231.16
6	0.677436	1.84	262.78
7	0.631214	1.63	290.74
8	0.580523	1.43	314.85
9	0.543190	1.30	336.37
10	0.502121	1.17	355.13
11	0.461041	1.05	371.27
12	0.417722	0.93	384.79
13	0.369324	0.81	395.59
14	0.317522	0.69	403.74
15	0.269235	0.58	409.73

**Lampiran 3:** Output Nilai ACF dan PACF Data Jumlah Produk Penjualan Hijab Hasil *Differencing* kedua.

**Autocorrelation for DIFF2**

Lag	ACF	T	LBQ
1	-0.631103	-4.81	24.32
2	0.244780	1.39	28.04
3	-0.099619	-0.55	28.67
4	0.067602	0.37	28.96
5	-0.153572	-0.84	30.51
6	0.075048	0.40	30.89
7	-0.039341	-0.21	30.99
8	-0.048328	-0.26	31.16
9	0.147220	0.79	32.70
10	-0.173137	-0.92	34.87
11	0.181010	0.95	37.29
12	-0.151206	-0.78	39.02
13	0.225315	1.15	42.95
14	-0.222397	-1.11	46.86
15	0.225825	1.10	50.99

**Lanjutan...**

**Lampiran 3:** Output Nilai ACF dan PACF Data Jumlah Produk Penjualan Hijab Hasil *Differencing* kedua.

**Partial Autocorrelation for DIFF2**

Lag	PACF	T
1	-0.631103	-4.81
2	-0.255125	-1.94
3	-0.118633	-0.90
4	-0.006745	-0.05
5	-0.192561	-1.47
6	-0.236649	-1.80
7	-0.201188	-1.53
8	-0.298677	-2.27
9	-0.096227	-0.73
10	-0.254528	-1.94
11	-0.191730	-1.46
12	-0.331455	-2.52
13	-0.123837	-0.94
14	-0.189751	-1.45
15	-0.018351	-0.14

**Lampiran 4:** Output Estimasi Parameter ARIMA(1,2,0) dan ARIMA(0,2,1)

ARIMA Model (1,2,0)

**Estimates at Each Iteration**

Iteration	SSE	Parameters
0	42040.9	0.100
1	34759.7	-0.050
2	29141.3	-0.200
3	25185.7	-0.350
4	22893.0	-0.500
5	22252.5	-0.625
6	22250.9	-0.631
7	22250.9	-0.632

*Relative change in each estimate less than 0.001*

**Final Estimates of Parameters**

Type	Coef	SE Coef	T-Value	P-Value
AR 1	-0.632	0.103	-6.15	0.000

Differencing: 2 regular differences

Number of observations: Original series 60, after differencing 58

**Residual Sums of Squares**

DF	SS	MS
57	22250.7	390.363

*Back forecasts excluded*

**Modified Box-Pierce (Ljung-Box) Chi-Square Statistic**

Lag	12	24	36	48
Chi-Square	10.54	17.90	25.92	42.17
DF	11	23	35	47
P-Value	0.482	0.763	0.868	0.673



**Lanjutan...**

**Lampiran 4:** Output Estimasi Parameter ARIMA(1,2,0) dan ARIMA(0,2,1)

ARIMA Model (0,2,1)

**Estimates at Each Iteration**

Iteration	SSE	Parameters
0	42040.9	0.100
1	34759.7	-0.050
2	29141.3	-0.200
3	25185.7	-0.350
4	22893.0	-0.500
5	22252.5	-0.625
6	22250.9	-0.631
7	22250.9	-0.632

*Relative change in each estimate less than 0.001*

**Final Estimates of Parameters**

Type	Coef	SE Coef	T-Value	P-Value
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AR 1 -0.632 0.103 -6.15 0.000

Differencing: 2 regular differences

Number of observations: Original series 60, after differencing 58

**Residual Sums of Squares**

DF	SS	MS
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57 22250.7 390.363

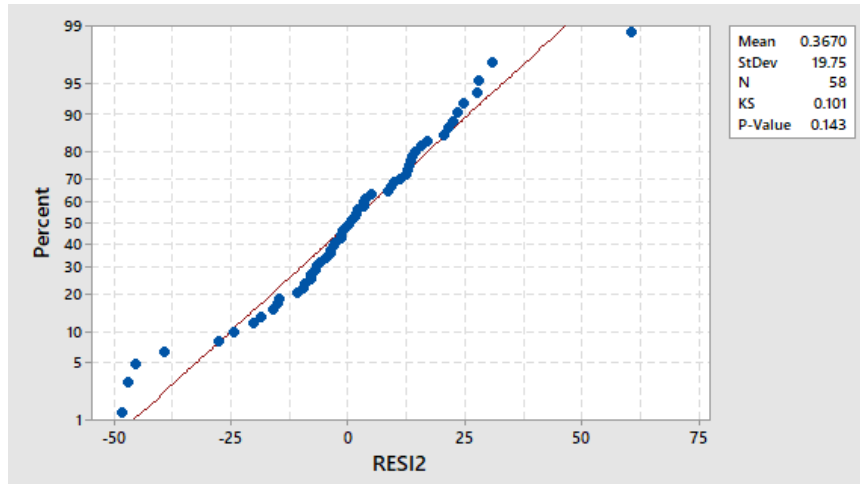
*Back forecasts excluded*

**Modified Box-Pierce (Ljung-Box) Chi-Square Statistic**

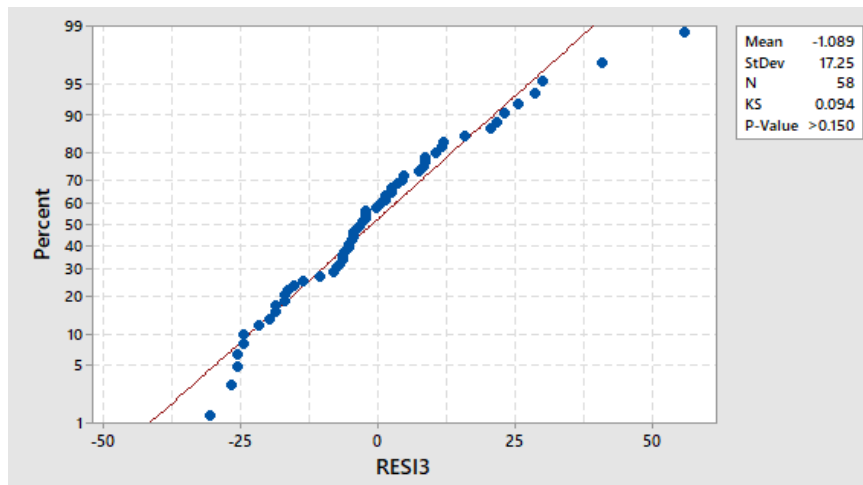
Lag	12	24	36	48
Chi-Square	10.54	17.90	25.92	42.17
DF	11	23	35	47
P-Value	0.482	0.763	0.868	0.673

Lampiran 5: Output Residual ARIMA(1,2,0) dan ARIMA(0,2,1)

ARIMA (1,2,0)



ARIMA (0,2,1)



**Lampiran 6:** Hasil Perhitungan Nilai  $x_t$  Peta Kendali ARIMA EWMA

$x_t$	$x_t$	$x_t$
0	0.842555	2.9804
0	-1.86247	4.062623
-0.70355	-1.65136	-1.36161
-0.39936	-0.44151	2.046512
-1.69697	-0.33888	-2.56569
0.813147	-2.43686	-0.45039
-1.6917	-0.62232	0.352296
-0.48161	-0.21861	-0.54981
-0.27874	2.282694	-0.64653
-1.87708	-0.03092	-0.24267
0.234119	0.469263	-0.64122
0.132723	1.566464	-0.2374
-2.56807	2.15712	5.564018
0.047249	1.144254	-2.66917
0.746967	-3.06257	2.846751
0.242512	-0.5443	-0.77023
-1.05893	-2.44106	1.034366
2.547381	-1.5265	-1.9718
0.432187	-0.81739	0.139957
-2.17039	1.187483	0.839122

**Lampiran 7: Faktor-Faktor untuk Membuat Peta Kendali Variabel**

Observasi pada sampel n	Grafik untuk Standar Deviasi						Grafik untuk Rentang				
	Faktor untuk Batas Kendali				Faktor untuk Garis Tengah		Faktor untuk Batas Kendali				
	B3	B4	B5	B6	d2	1/d2	d3	D1	D2	D3	D4
2	0.000	3.267	0.000	2.606	1.128	0.887	0.853	0.000	3.686	0.000	3.267
3	0.000	2.568	0.000	2.276	1.693	0.591	0.888	0.000	4.358	0.000	2.574
4	0.000	2.266	0.000	2.088	2.059	0.486	0.880	0.000	4.698	0.000	2.282
5	0.000	2.089	0.000	1.964	2.326	0.430	0.864	0.000	4.918	0.000	2.114
6	0.030	1.970	0.029	1.874	2.534	0.395	0.848	0.000	5.078	0.000	2.004
7	0.118	1.882	0.113	1.806	2.704	0.370	0.833	0.204	5.204	0.076	1.924
8	0.185	1.815	0.179	1.751	2.847	0.351	0.820	0.388	5.306	0.136	1.864
9	0.239	1.761	0.232	1.707	2.970	0.337	0.808	0.547	5.393	0.184	1.816
10	0.284	1.716	0.276	1.669	3.078	0.325	0.797	0.687	5.469	0.223	1.777
11	0.321	1.679	0.313	1.637	3.173	0.315	0.787	0.811	5.535	0.256	1.744
12	0.354	1.646	0.346	1.610	3.258	0.307	0.778	0.922	5.594	0.283	1.717
13	0.382	1.618	0.374	1.585	3.336	0.300	0.770	1.025	5.647	0.307	1.693
14	0.406	1.594	0.399	1.563	3.407	0.294	0.763	1.118	5.696	0.328	1.672
15	0.428	1.572	0.421	1.544	3.472	0.288	0.756	1.203	5.741	0.347	1.653
16	0.448	1.552	0.440	1.526	3.532	0.283	0.750	1.282	5.782	0.363	1.637
17	0.466	1.534	0.458	1.511	3.588	0.279	0.744	1.356	5.820	0.378	1.622
18	0.482	1.518	0.475	1.496	3.640	0.275	0.739	1.424	5.856	0.391	1.608
19	0.497	1.503	0.490	1.483	3.689	0.271	0.734	1.487	5.891	0.403	1.597
20	0.510	1.490	0.504	1.470	3.735	0.268	0.729	1.549	5.921	0.415	1.585
21	0.523	1.477	0.516	1.459	3.778	0.265	0.724	1.605	5.951	0.425	1.575
22	0.534	1.466	0.528	1.448	3.819	0.262	0.720	1.659	5.979	0.434	1.566
23	0.545	1.455	0.539	1.438	3.858	0.259	0.716	1.710	6.006	0.443	1.557
24	0.555	1.445	0.549	1.429	3.895	0.257	0.712	1.759	6.031	0.451	1.548
25	0.565	1.435	0.559	1.420	3.931	0.254	0.708	1.806	6.056	0.459	1.541

Lampiran 8: Nilai Residual dan Nilai Rentang Sampel

Sampel ke-z	Data Penjualan	Residual	Rentang sampel	Sampel ke-z	Data Penjualan	Residual	Rentang sampel
1	37			31	200	4.692628	-5.00184
2	39			32	225	15.66464	-10.972
3	42	-7.03553		33	256	21.5712	-5.90657
4	48	-3.99357	-3.04196	34	277	11.44254	10.12867
5	41	-16.9697	12.97618	35	256	-30.6257	42.06825
6	59	8.131474	-25.1012	36	260	-5.44304	-25.1827
7	52	-16.917	25.0485	37	245	-24.4106	18.96753
8	57	-4.81612	-12.1009	38	239	-15.265	-9.1456
9	64	-2.7874	-2.02873	39	240	-8.17392	-7.09105
10	55	-18.7708	15.98337	40	261	11.87483	-20.0488
11	67	2.341192	-21.112	41	300	29.804	-17.9292
12	78	1.327228	1.013964	42	350	40.62623	-10.8222
13	62	-25.6807	27.00792	43	346	-13.6161	54.24232
14	72	0.472489	-26.1532	44	376	20.46512	-34.0812
15	89	7.46967	-6.99718	45	360	-25.6569	46.12207
16	101	2.425116	5.044554	46	365	-4.50391	-21.153
17	100	-10.5893	13.01447	47	378	3.522956	-8.02686
18	135	25.47381	-36.0632	48	382	-5.49806	9.021013
19	149	4.32187	21.15194	49	385	-6.46526	0.967206
20	137	-21.7039	26.02578	50	392	-2.4267	-4.03856
21	155	8.425548	-30.1295	51	395	-6.41222	3.985525
22	146	-18.6247	27.05026	52	402	-2.37398	-4.03825
23	139	-16.5136	-2.11109	53	467	55.64018	-58.0142
24	144	-4.41512	-12.0985	54	450	-26.6917	82.33188
25	150	-3.38878	-1.02633	55	488	28.46751	-55.1592
26	135	-24.3686	20.97979	56	490	-7.70229	36.1698
27	138	-6.22322	-18.1454	57	510	10.34366	-18.0459
28	145	-2.1861	-4.03712	58	500	-19.718	30.0617

<b>29</b>	177	22.82694	-25.013	59	511	1.39957	-21.1176
<b>30</b>	186	-0.30922	23.13616	60	529	8.391222	-6.99165