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LAMPIRAN

Lampiran 1 Data Historikal Permintaan PT. United Tracktors *site* Binungan

Sum of Ord.qty	Column Labels												Grand Total
Row Labels	Januari	Februari	Maret	April	Mei	Juni	Juli	Agustus	September	Oktober	November	Desember	
ELEMENT													
FILTER (C)	10		6		5	9	6	5		11	8	4	64
207-60-													
71183	10		6		5	9	6	5		11	8	4	64
FILTER	2	2	5	12	5	5	23	9	14	17	18	2	114
17M-911-													
3530			2		2	2	13	1	2	7	6		35
2A5-979-													
1551			2		2	2	7	1	5	6	7		32
423-60-													
45461	1	1	1		1	1	2	2	3	4	5	2	23
702-21-													
53120								1					1
702-21-													
53140	1	1					1						3
708-2L-													
25480				12				4	4				20

HYD FILTER *** (C)		3	2	1	5	3		4		3	4	7		32
07063-01054		3	2	1	5	3		4		3	4	7		32
HYDRAULIC FILTER **	2				1	2		2			1	2		10
07063-01100	2				1	2		2			1	2		10
LI*FILTER (C)	2	4		2	3	3		3		3			2	22
6736-51- 5142	2	4		2	3	3		3		3			2	22
FILTER OIL	5	7	10	6	8	11	14	11		20	21	19	13	145
6742-01- 4540	5	7	10	6	8	11	14	11		20	21	19	13	145



Lampiran 2 Hasil Input dan Output Moving Average

POM for Windows - C:\Users\halil\Downloads\Filter Oil 2022.for - [Data Table]

File Edit View Module Format Tools Window Help

Microsoft YaHei Light 8.2f B I U .000 Fix Dec 0.0 Solve

Method: Moving Averages # Periods to average: 2

	Demand(y)
January	5
February	7
March	10
April	6
May	8
June	11
July	14
August	11
September	20
October	21
November	19
December	13

POM for Windows - C:\Users\halil\Downloads\Filter Oil 2022.for

File Edit View Module Format Tools Window Help

Microsoft YaHei Light 8.2f B I U .000 Fix Dec 0.0 Edit Data

Method: Moving Averages # Periods to average: 2

Forecasting Results

Measure	Value
Error Measures	
Bias (Mean Error)	1,3
MAD (Mean Absolute Deviation)	3,8
MSE (Mean Squared Error)	19,85
Standard Error (denom=n-2=8)	4,981
MAPE (Mean Absolute Percent Error)	,289
Forecast	
next period	16

Details and Error Analysis						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
April	6	8,5	-2,5	2,5	6,25	,417
May	8	8	0	0	0	0
June	11	7	4	4	16	,364
July	14	9,5	4,5	4,5	20,25	,321
August	11	12,5	-1,5	1,5	2,25	,136
September	20	12,5	7,5	7,5	56,25	,375
October	21	15,5	5,5	5,5	30,25	,262
November	19	20,5	-1,5	1,5	2,25	,079
December	13	20	-7	7	49	,538
TOTALS	145		13	38	198,5	2,892
AVERAGE	12,083		1,3	3,8	19,85	,289
Next period forecast		16	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4,981	



Lampiran 3 Hasil Input dan Ouput Exponential Smoothing

POM for Windows - C:\Users\halil\Downloads\FILTER Oil 2022.for - [Data Table]

File Edit View Module Format Tools Window Help

Microsoft YaHei Light 8.2! B I U .000 Fix Dec 0.0 Solve

Method: Exponential Smoothing Alpha for smoothing: 0.5

	Demand(y)	Forecast
January	5	0
February	7	0
March	10	0
April	6	0
May	8	0
June	11	0
July	14	0
August	11	0
September	20	0
October	21	0
November	19	0
December	13	0

POM for Windows - C:\Users\halil\Downloads\FILTER Oil 2022.for

File Edit View Module Format Tools Window Help

Microsoft YaHei Light 8.2! B I U .000 Fix Dec 0.0 Edit Data

Method: Exponential Smoothing Alpha for smoothing: 0.5

Forecasting Results

Measure	Value
Error Measures	
Bias (Mean Error)	1,969
MAD (Mean Absolute Deviation)	3,477
MSE (Mean Squared Error)	17,888
Standard Error (denom=n-2=9)	4,676
MAPE (Mean Absolute Percent Error)	,274
Forecast	
next period	15,832

Details and Error Analysis							(until)
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error	
April	6	8	-2	2	4	,333	
May	8	7	1	1	1	,125	
June	11	7,5	3,5	3,5	12,25	,318	
July	14	9,25	4,75	4,75	22,563	,339	
August	11	11,625	-,625	,625	,391	,057	
September	20	11,313	8,688	8,688	75,473	,434	
October	21	15,656	5,344	5,344	28,556	,254	
November	19	18,328	-,672	,672	,451	,035	
December	13	18,664	-5,664	5,664	32,082	,436	
TOTALS	145		21,664	38,242	196,765	3,018	
AVERAGE	12,083		1,969	3,477	17,888	,274	
Next period forecast		15,832	(Bias)	(MAD)	(MSE)	(MAPE)	
				Std err	4,676		

Lampiran 4 Hasil Input dan Ouput Naive

POM for Windows - C:\Users\halil\Downloads\Filter Oil 2022.for - [Data Table]

File Edit View Module Format Tools Window Help

Microsoft YaHei Light 8.2' B I U .000 Fix Dec 0.0 Solve

Method: Naive Method

Instruction: Choose the method that you wish to use by clicking on it.

	Demand(y)
January	5
February	7
March	10
April	6
May	8
June	11
July	14
August	11
September	20
October	21
November	19
December	13

POM for Windows - C:\Users\halil\Downloads\Filter Oil 2022.for

File Edit View Module Format Tools Window Help

Microsoft YaHei Light 8.21 B I U .000 Fix Dec 0.0 Edit Data

Method: Naive Method Instruction: There are more results available in additional windows. The

Forecasting Results

Measure	Value
Error Measures	
Bias (Mean Error)	,727
MAD (Mean Absolute Deviation)	3,455
MSE (Mean Squared Error)	16,545
Standard Error (denom=n-2=9)	4,497
MAPE (Mean Absolute Percent Error)	,302
Forecast	
next period	13

Details and Error Analysis							(units)
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error	
April	6	10	-4	4	16	,667	
May	8	6	2	2	4	,25	
June	11	8	3	3	9	,273	
July	14	11	3	3	9	,214	
August	11	14	-3	3	9	,273	
September	20	11	9	9	81	,45	
October	21	20	1	1	1	,048	
November	19	21	-2	2	4	,105	
December	13	19	-6	6	36	,462	
TOTALS	145		8	38	182	3,327	
AVERAGE	12,083		,727	3,455	16,545	,302	
Next period forecast		13	(Bias)	(MAD)	(MSE)	(MAPE)	
				Std err	4,497		

Lampiran 5 Dokumentasi Penelitian di PT.United Tractors *site* Binungan



PT. UNITED TRACTORS
BERAU COAL

Lampiran 6 Dokumentasi wawancara dan pengambilan data di PT. United Tractors



Lampiran 7 Dokumentasi di tempat penyimpanan *Filter Oil*



Lampiran 8 Fisik *spareparts filter oil*



**POLITEKNIK SINAR MAS
BERAU COAL**

Lampiran 9 Dokumentasi PT. United Tractors



BIODATA PENULIS



Penulis bernama lengkap Muhammad Halilurrahman, dilahirkan di Mandala, 4 Oktober 2001. Penulis merupakan anak kedua dari lima bersaudara. Penulis telah menempuh pendidikan formal di SDN 021 Tanjung Redeb, MTSN Tanjung Redeb, dan SMAN 7 Berau. Penulis meneruskan pendidikan di Program Teknologi Rekayasa Logistik pada tahun 2019 dan terdaftar dengan NIM 19401017. Dalam masa perkuliahannya, penulis aktif di berbagai bidang non akademik. Penulis aktif mengikuti organisasi mahasiswa antara lain menjadi Staff Departemen HUMAS BEM Poltek Simas Berau 2020-2021. Penulis juga aktif di berbagai kegiatan kepanitiaan, salah satunya ialah menjadi anggota di kegiatan BINTALSIK pada tahun 2022 di Politeknik Sinarmas Berau Coal, penulis melaksanakan kegiatan KPI (Kuliah Praktik Industri) di PT Berau Coal Site Binungan Mine Operation selama 3 bulan. Lalu pada tahun 2022 penulis menjalankan kegiatan Prakerin (Praktik Kerja Industri) selama 5 bulan di PT. United Tractors. Pada akhir tahun perkuliahan, penulis menyusun skripsi dengan judul “*Analisis Forecasting Demand Produk Filter Oil Dengan Metode Naive, Moving Average & Exponential Smoothing Terhadap Pengendalian Persediaan Customer PT. Bandang Mining Coal Di PT. United Tractors Tbk, site Binungan Kalimantan Timur*”. Untuk keperluan penelitian, penulis dapat dihubungi melalui e-mail: halil.trl19@gmail.com

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