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**ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN
MENGUNAKAN METODE ABC DAN *ECONOMIC ORDER
QUANTITY* (EOQ) DI APOTEK X DURI**

TUGAS AKHIR

*Diajukan Sebagai Salah Satu Syarat Untuk Memperoleh Gelar Sarjana Teknik,
Pada Program Studi Teknik Industri Fakultas Sains dan Teknologi
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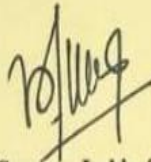
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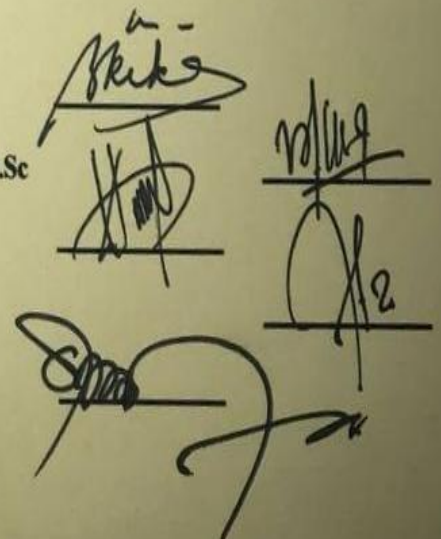
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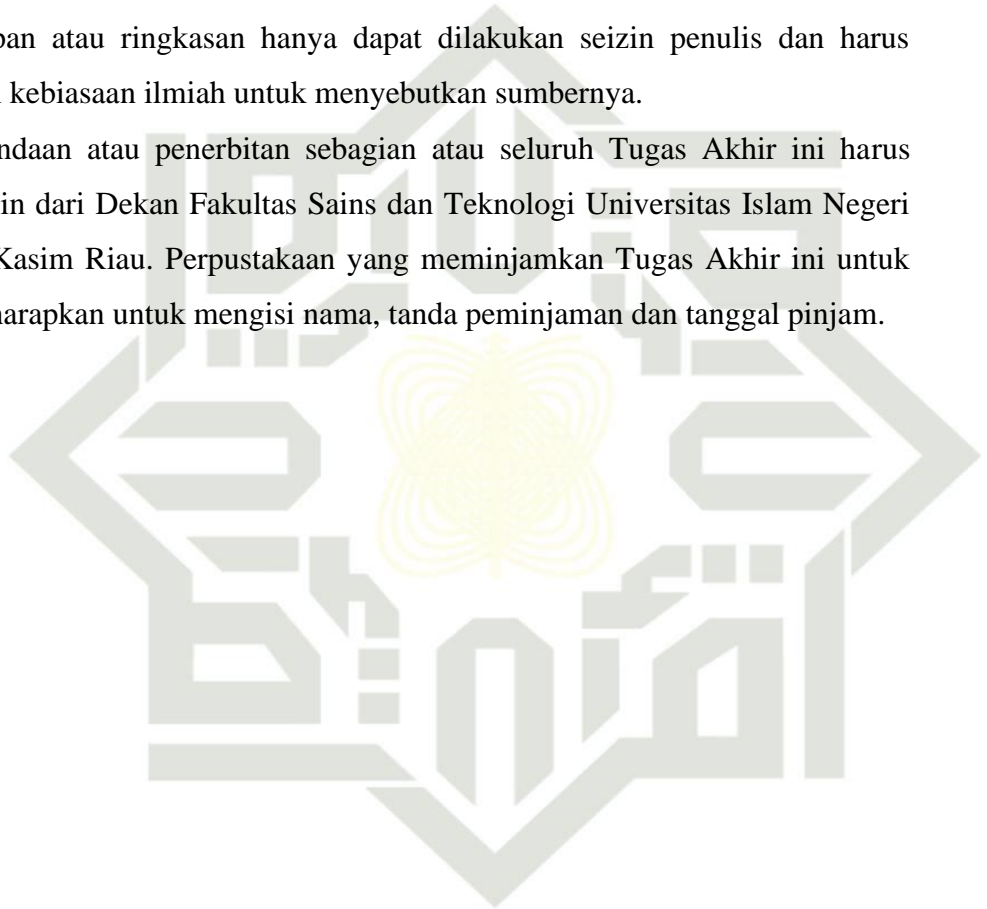
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LEMBAR PERSEMBAHAN

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Wiscaya Allah akan mengangkat (derajat) orang-orang yang beriman diantaramu dan orang-orang yang diberi ilmu beberapa derajat (QS: Al-Mujadilah 11)". "Barang siapa bertakwa kepada Allah maka Dia akan menjadikan jalan keluar baginya, dan memberinya rezeki dari jalan yang tidak ia sangka, dan barang siapa yang bertawakal kepada Allah maka cukuplah Allah baginya, Sesungguhnya Allah melaksanakan kehendak-Nya, Sungguh Allah telah mengadakan ketentuan bagi setiap sesuatu". (QS. Ath -Thalaq: 2-3)" "Dan janganlah kamu berputus asa dari rahmat Allah. Sesungguhnya tiada berputus dari rahmat Allah melainkan orang-orang yang kafur" (Q.S Yusuf ayat: 18)

Segala puji dan syukur kupersembahkan bagi sang penggenggam langit dan bumi, dengan Rahmaan Rahiim yang menghampar melebihi luasnya angkasa raya. Dzat yang menganugerahkan kedamaian bagi jiwa-jiwa yang senantiasa merindu akan kemaha besarannya

Lantunan sholawat beriring salam penggugah hati dan jiwa, menjadi persembahan penuh kerinduan pada sang revolusioner Islam, pembangun peradaban manusia yang beradab Muhammad Shallallahu 'Alaihi Wasallam.

Perjuangan adalah segala bentuk cara, langkah, awalan untuk mencapai segala bentuk kesuksesan, serta dapat menjadikan kita manusia yang berkualitas, karena hanya mereka yang masihi mampu dan sanggup terus melangkah yang dapat melanjutkan perjuangan itu.

Tetes peluh yang membasahi asa, ketakutan yang memberatkan langkah, tangis keputus asa yang sulit dibendung, dan kekecewaan yang pernah menghiasi hari-hari kini menjadi tangisan penuh kesyukuran dan kebahagiaan yang tumpah dalam sujud panjang. Alhamdulillah mahi besar Allah, sembah sujud sedalam qalbu hamba haturkanatas karunia dan rizki yang melimpah, kebutuhan yang tercukupi, dan kehidupan yang layak

Ku persembahkan.....

Kepada kedua orang tuaku, Mama dan Papa yang selalu ada untukku berbagi, mendengar segala keluh kesahiku serta selalu mendoakan anakmu ini dalam meraih impian dan cita-cita serta mendapat Ridho-Nya...

Pekanbaru, 15 Juli 2022

Nofita Putri Rahmadhani



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ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN MENGUNAKAN METODE ABC DAN *ECONOMIC ORDER QUANTITY* (EOQ) DI APOTEK X DURI

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ABSTRAK

Apotek X berada di Jl. Jendral Sudirman, Kelurahan Duri Barat, Kecamatan Mandau, Kabupaten Bengkalis, Riau. Apotek ini mengalami permasalahan dalam pengendalian persediaan obat karena tidak ada pengelompokan obat dan tidak ada ketentuan dalam menentukan jumlah pemesanan kembali. Penelitian ini bertujuan untuk mengetahui obat paten jenis A dengan Metode ABC, jumlah optimum pemesanan obat menggunakan Metode *Economic Order Quantity* dan pemesanan kembali. Pengumpulan data dilakukan dengan cara observasi dan wawancara mengenai perusahaan *supplier* obat, *lead time*, biaya penyimpanan, biaya pemesanan dan data penjualan. Dari hasil didapatkan bahwa pengelompokan Metode ABC obat paten jenis A berjumlah 31 jenis obat dengan menggunakan EOQ terbukti lebih optimal dengan selisih Rp. 582.498,373 serta penggunaan *Reorder Point* dengan rata-rata saat obat tinggal 1 buah perusahaan harus melakukan pemesanan kembali. Diharapkan Apotek X mempertimbangkan penggunaan EOQ untuk melakukan kebijakan pemesanan yang minimum pada obat yang diprioritaskan, sebagai upaya untuk mengurangi biaya persediaan yang berlebihan.

Kata kunci: EOQ, Metode ABC, *Lead Time*, *Reorder Point*.



ANALYSIS OF PATENT DRUG INVENTORY CONTROL USING ABC METHOD AND ECONOMIC ORDER QUANTITY (EOQ) IN APOTEK X DURI

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ABSTRACT

Apotek X is located on Jl. Jendral Sudirman, Duri Barat Village, Mandau District, Bengkalis Regency, Riau. This pharmacy had problems in controlling drug supplies because there is no grouping of drugs and there is no provision in determining the number of reorders. This research aims to determine the patent drug type A with the ABC Method, the optimum number of drug orders using the Economic Order Quantity Method and reordering. Data collection is carried out by means of observation and interviews about drug supplier companies, lead time, storage costs, ordering costs and sales data. From the results, it was found that the abc method grouping of patent drugs type A amounted to 31 types of drugs using EOQ proved to be more optimal with adispute of Rp. 582. 498,373, as well as the use of Reorder Point with an average when the drug stayed 1 unit the company had to reorder. It is expected that Apotek X considers the use of EOQ to carry out a minimum ordering on prioritized drugs, in an effort to reduce excessive inventory costs.

Keywords: ABC Method, EOQ, Lead Time, Reorder Point.

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KATA PENGANTAR



Assalamu'alaikum wr.wb

Puji syukur kami panjatkan kepada Allah S.W.T atas segala rahmat, karunia serta hidayah-Nya, Shalawat dan salam semoga terlimpah kepada Nabi Muhammad S.A.W. sehingga penulis dapat menyelesaikan Laporan Tugas Akhir dengan judul “Analisis Pengendalian Persediaan Obat Paten Menggunakan Metode ABC dan *Economic Order Quantity* (EOQ) Di Apotek X Duri” sesuai dengan waktu yang ditetapkan. Laporan ini diajukan sebagai salah satu syarat dalam meraih gelar Sarjana Teknik di Program Studi Teknik Industri Fakultas Sains dan Teknologi Universitas Islam Negeri Sultan Syarif Kasim Riau.

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Pekanbaru, 15 Juli 2022
Penulis,

Nofita Putri Rahmadhani
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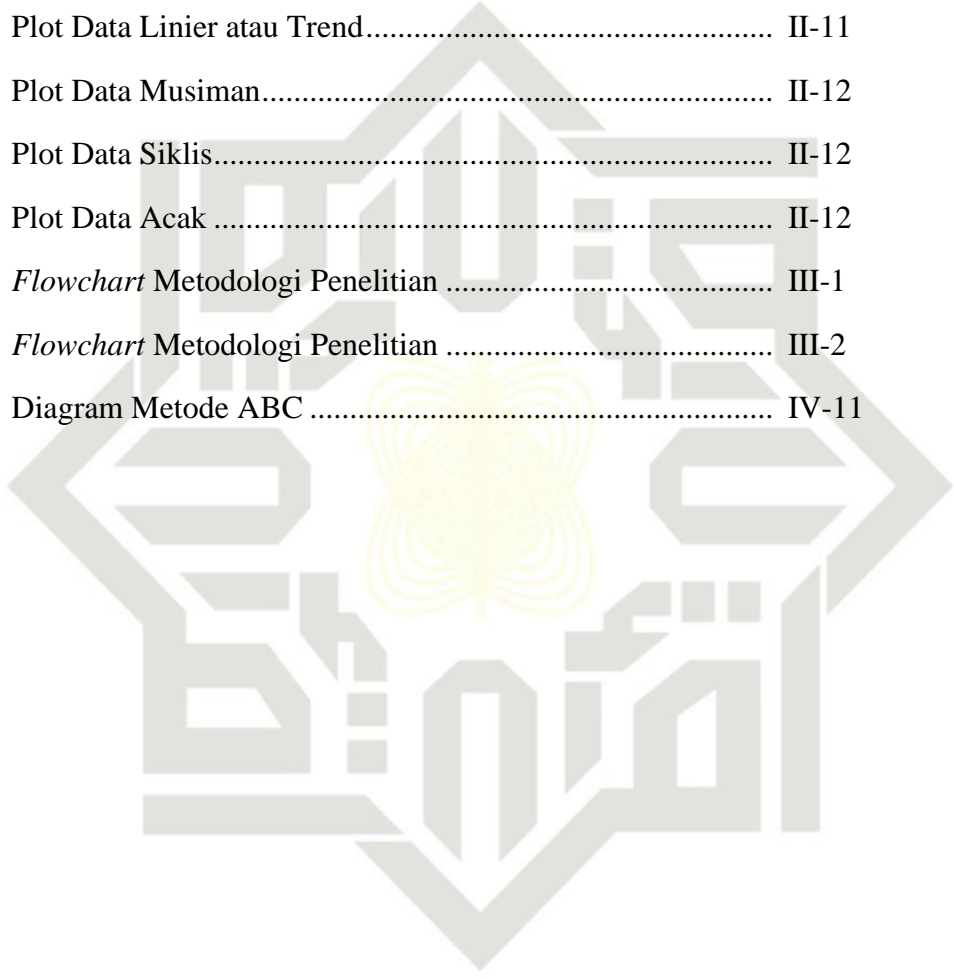


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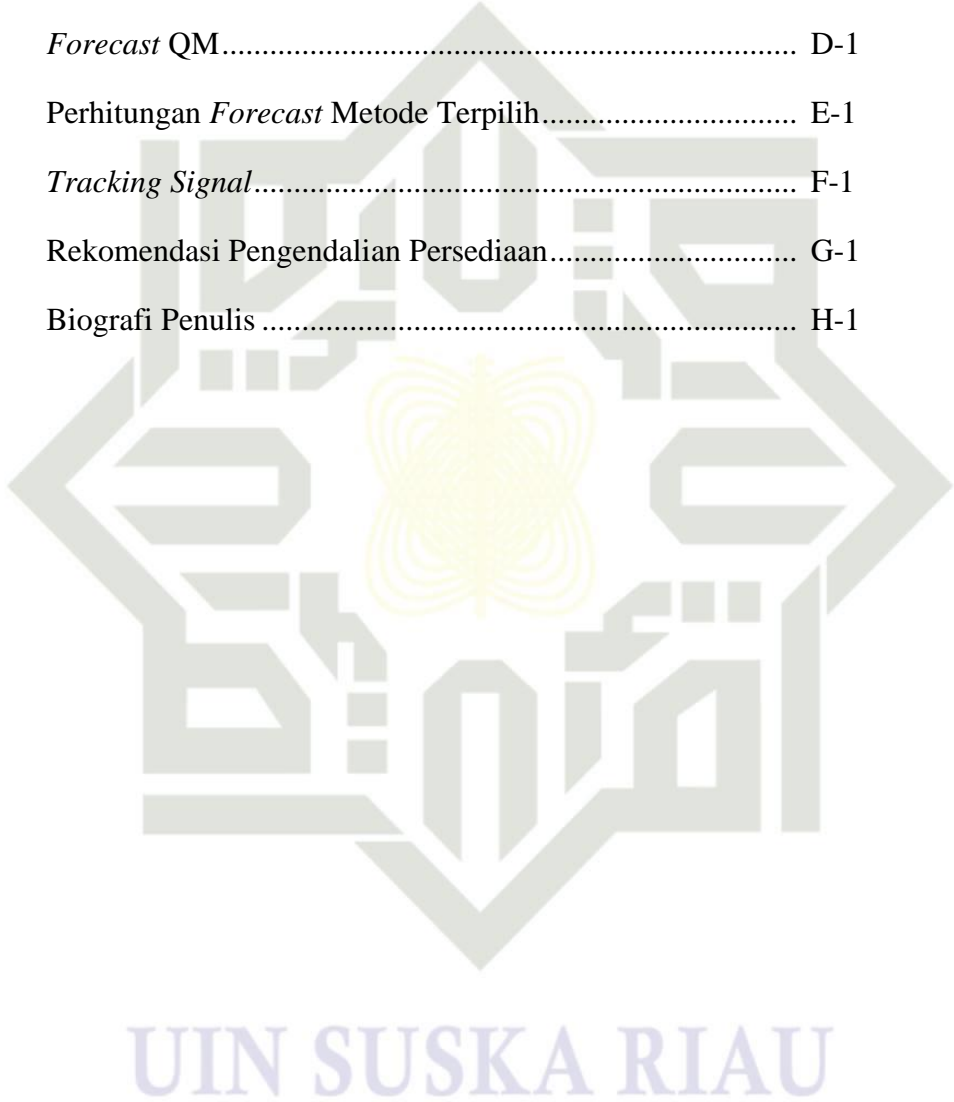


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BAB I PENDAHULUAN

1.1 Latar Belakang

Pada zaman modern ini, perkembangan di bidang ilmu dan teknologi membuat manusia harus bisa meningkatkan kemampuan dalam mempertimbangkan segala kemungkinan sebelum memutuskan tindakan. Salah satunya adalah dalam memutuskan persediaan barang dalam suatu usaha. Persediaan barang merupakan salah satu bagian terpenting dalam keberlangsungan suatu badan usaha. Pengendalian persediaan barang dapat diterapkan di berbagai bidang usaha, yang mana usaha tersebut memiliki banyak jenis barang.

Pengendalian persediaan juga dapat diterapkan di apotek yang mana dalam hal ini dikarenakan apotek memiliki berbagai jenis obat. Menurut PP No 51 tahun 2009, Apotek adalah sarana pelayanan kefarmasian tempat dilakukan praktek kefarmasian oleh Apoteker. Apotek menjual berbagai jenis obat baik obat paten maupun generik. Menurut Sibuea (2017) dikutip oleh Abbas et al (2021), biasanya, usaha apotek membuat perencanaan dan pengendalian persediaan berdasarkan keadaan di masa lalu, sehingga tidak heran apotek mengalami kekurangan atau kelebihan persediaan. Hal ini terjadi karena jumlah kebutuhan yang selalu berubah-ubah tergantung permintaan.

Menurut John dan Harding dalam Nisa (2018) dikutip oleh Abbas et al (2021) untuk dapat mengetahui bahwa pengendalian persediaan tersebut bisa dikatakan efektif, maka ada tiga hal yang harus dijawab yaitu, apa yang harus dikendalikan, berapa banyak yang akan dipesan dan kapan akan dilakukan pemesanan kembali. Maka metode yang dapat digunakan untuk menjawab pertanyaan tersebut adalah Metode ABC untuk mengetahui obat yang menjadi prioritas untuk dikendalikan, Metode *Economic Order Quantity* (EOQ) untuk mengetahui berapa banyak obat yang harus dipesan, dan menggunakan metode *Reorder Point* (ROP) untuk mengetahui kapan obat akan dipesan kembali. Menurut Utari (2014) dikutip oleh Nofrika et al (2021), Metode ABC merupakan metode pembuatan grup atau penggolongan berdasarkan perangkat nilai dari nilai tertinggi hingga terendah dan

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dibagi menjadi 3 kelompok besar yang disebut kelompok A (nilai investasi tinggi, B (nilai investasi sedang), dan C (nilai investasi rendah). Metode ABC digunakan untuk mengetahui tingkat kepentingan persediaan, dimana pengendalian persediaan dilakukan pada persediaan yang memiliki nilai sangat penting dan penting menurut Metode ABC (Fikram, 2019). EOQ adalah sebuah perhitungan dengan rumus mengenai berapa jumlah, atau frekuensi pemesanan, atau nilai pemesanan yang paling ekonomis. EOQ sebenarnya merupakan volume atau jumlah pembelian yang paling ekonomis untuk dilaksanakan pada setiap kali pemesanan (Prabawa et al., 2019). Menurut Heizer dan Render (2010) dikutip oleh Prastyorini (2020), tingkat pemesanan kembali (*Reorder Point*) adalah suatu titik atau batas dari jumlah persediaan yang ada pada suatu saat di mana pemesanan atau pembelian harus diadakan kembali. Fadhila Rahmi (2013) dikutip oleh Melizsa et al (2021) menyimpulkan bahwa penerapan EOQ dapat mengefisienkan total dari biaya persediaan sehingga dapat lebih terkontrol dan perusahaan juga mengetahui jumlah bahan baku yang sebaiknya dapat dipesan serta kapan dilakukannya pemesanan atau *Reorder Point* (ROP). (Melizsa et al., 2021)

Apotek X berada di Jl. Jendral Sudirman, Kelurahan Duri Barat, Kecamatan Mandau, Kabupaten Bengkalis, Riau yang merupakan salah satu apotek yang banyak dituju masyarakat sekitar karena terletak di jalan utama yang ada di Duri. Selama ini pengendalian persediaan obat yang dilakukan Apotek X hanya dengan pengecekan stock tiap-tiap obat. Pemesanan hanya dilakukan jika *stock* obat habis. Tidak ada pengelompokkan obat dan tidak ada perhitungan khusus untuk menentukan jumlah pemesanan kembali.

Berdasarkan hasil wawancara dengan pemilik apotek, masalah utama yang sering terjadi yaitu kekosongan obat dan kelebihan obat, yang mana kelebihan ini terjadi karena obat yang jarang di beli oleh konsumen tapi apotek terlalu banyak menyimpan *stock* obat tersebut. Sedangkan kekosongan obat terjadi karna keterlambatan dalam pemesanan dan kekosongan obat pada *supplier*. Perusahaan yang mensuplai obat pada apotek ini ada 10 *supplier* yaitu PT. Amtar Mitra Sembada, PT. Kebayoran Farma, PT. Indo Farma Global Medica, PT. Harapan Raya Mandiri, PT. Bina Sanprima, PT. Anugrah Arigon Medica, PT. Global

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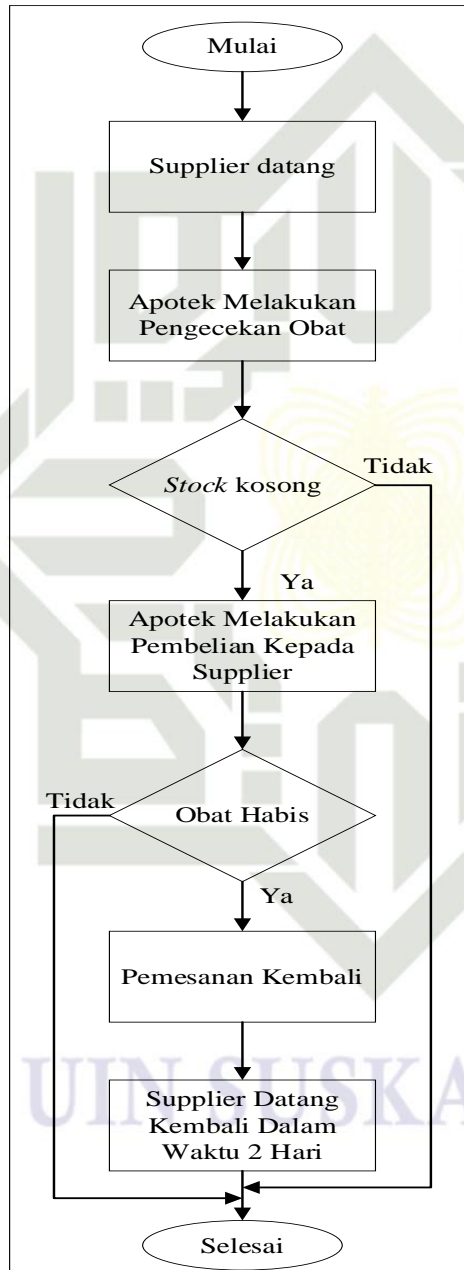
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Medica Pekanbaru, PT. Kimia Farma, PT. Mensa Bina Sukses, dan PT. Pentavalen. Pemesanan obat dilakukan saat *supplier* datang ke apotek yaitu setiap awal bulan, dan apabila *stock* obat sudah habis barulah pihak apotek melakukan pemesanan kembali.

Berikut adalah skema atau alur pemesanan obat paten pada Apotek X setiap bulannya:



Gambar 1.1 Skema Pemesanan Apotek X
(Sumber: Apotek X, 2022)

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Berdasarkan Lampiran A-1 dapat diketahui bahwa Apotek X melakukan pemesanan kepada *supplier* dengan rata-rata berjumlah 20 strip/obat tablet, 10 botol/obat sirup, 5 tube/obat salep, dan 5 supose obat Pamol 125 Mg Supos. Apabila *stock* pemesanan tersebut habis maka Apotek X baru melakukan pemesanan kembali dengan rata-rata jumlah yang sama. Seperti yang terlihat pada tabel tersebut, obat-obat yang diberi tulisan berwarna merah adalah obat yang telah habis pada pemesanan awal dan pihak apotek melakukan pemesanan kembali, kemudian obat yang berwarna biru adalah obat yang dilakukan pemesanan untuk yang ke dua kalinya, sedangkan obat yang diberi warna hijau adalah obat yang sudah dilakukan pemesanan kembali untuk yang ke tiga kalinya. Saat Apotek X melakukan pemesanan kembali pihak apotek mengeluarkan biaya tambahan sebanyak Rp. 1500/per 20 strip obat memerlukan waktu tunggu 2 hari untuk *supplier* datang ke apotek. Saat apotek melakukan *pre-order* tersebut, adanya lebih dari 2 konsumen yang datang dan permintaannya tidak terpenuhi karena waktu tunggu tersebut.

Berdasarkan Lampiran C dapat diketahui juga bahwa pada tahun 2021 terdapat banyak obat paten yang kadaluwarsa, yang mana pada Bulan Januari Apotek mengalami kerugian terbanyak akibat obat yang kadaluwarsa sebanyak Rp. 6.561.000,-. Apabila ditotalkan maka Apotek X mengalami kerugian sebanyak Rp. 15.752.500,- pada tahun 2021 akibat obat paten yang kadaluwarsa.

Beberapa penelitian terdahulu mengenai Metode Metode ABC, Metode *Economic Order Quantity* (EOQ), dan *Reorder Point* (ROP) diantaranya penelitian yang dilakukan oleh Imarah dan Jaelani (2020) dengan judul *ABC Analysis, Forecasting And Economic Order Quantity (EOQ) Implementation To Improve Smooth Operation Process*, hasil yang didapatkan adalah penerapan Metode ABC efektif mengurangi beban kerja penghitungan periodic dan mampu meningkatkan akurasi data ke level yang lebih tinggi, Metode peramalan *exponential smoothing* menunjukkan kesenjangan terkecil dengan nilai aktual dan EOQ secara efektif mengoptimalkan biaya pemesanan. Yang membedakan penelitian ini dengan penelitian penulis adalah terdapat pada studi kasus dan subjek yang diuji. Kemudian Alistcaputri dan Widiyanesti (2018) tentang analisis manajemen persediaan bahan baku dodol picnic dengan pendekatan Metode ABC dan *Economic Order Quantity*

(EOQ). Hasil yang didapatkan adalah Pengadaan untuk semua bahan baku Dodol Ponic Aneka Rasa (Durian, Wijen, dan Coklat) lebih baik menggunakan metode EOQ karena jumlah kuantitas yang dipesan untuk setiap kali pemesanan lebih banyak dengan jumlah frekuensi pemesanan yang lebih sedikit, sehingga dapat menghemat biaya pemesanan dan biaya penyimpanan. Adapun yang membedakan penelitian ini dengan penelitian penulis adalah terletak pada penelitian terdahulu ini menggunakan studi kasus bahan baku dodol sedangkan penulis mengambil studi kasus di Apotek. Penelitian yang dilakukan oleh Melizza, et al (2021) mengenai analisis pengendalian persediaan obat BPJS dengan Metode Metode ABC, Metode *Economic Order Quantity* (EOQ), dan *Reorder Point* (ROP) Di Instalasi Farmasi Rumah Sakit Hermina Ciputat. Hasil yang didapat yaitu melalui Metode ABC, terdapat 17 jenis obat yang tergolong kelompok A yang perlu di prioritaskan dalam pengendalian persediaan. Berdasarkan metode *Economic Order Quantity* (EOQ) jumlah pemesanan optimum untuk 17 obat tersebut bervariasi mulai dari 62 – 546 item. Adapun yang membedakan penelitian ini dengan penelitian penulis adalah pada penelitian ini tidak terdapat perhitungan TIC atau *total inventory cost* yang mana penulis akan menambahkan perhitungan TIC untuk mengetahui perbandingan perhitungan *total inventory cost manual* dari perusahaan dengan menggunakan metode.

Berdasarkan penjelasan diatas peneliti akan melakukan penelitian tentang pengendalian persediaan obat paten menggunakan Metode ABC, *Economic Order Quantity* (EOQ), dan *Reorder Point* (ROP) untuk mengatasi permasalahan persediaan yang ada pada Apotek X.

1.1 Rumusan Masalah

Berdasarkan uraian latar belakang diatas, maka rumusan masalah dalam penelitian ini adalah “Bagaimana mengendalikan persediaan obat paten menggunakan Metode ABC, dan *Economic Order Quantity* (EOQ) dalam mengatasi permasalahan yang ada pada Apotek X Duri?”

1.2 Tujuan Penelitian

Adapun tujuan yang dari penelitian ini adalah sebagai berikut:

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1. Untuk mengklasifikasi kelompok obat paten jenis A berdasarkan Metode ABC yang merupakan kelompok obat paten yang memberi *cost benefit* yang tinggi bagi Apotek X.
2. Untuk mengetahui jumlah optimum pemesanan obat menggunakan metode EOQ dan mengetahui kapan melakukan pemesanan kembali menggunakan metode ROP pada Apotek X.
3. Untuk memberikan rekomendasi atau usulan kepada Apotek X dalam menghadapi permasalahan pengendalian persediaan pada Obat Paten Jenis A.

1.4 Manfaat Penelitian

Adapun manfaat yang diharapkan dalam penelitian ini adalah sebagai berikut:

1. Bagi Peneliti
 - a. Dapat mengetahui Metode ABC, dan *Economic Order Quantity* (EOQ), Serta *Reorder Point* (ROP)
 - b. Dapat memberikan kontribusi dalam membantu Apotek X dalam permasalahan pengendalian persediaan
2. Bagi Perusahaan
Dapat memberikan gambaran bagi apotek mengenai pengendalian persediaan obat berdasarkan Metode ABC, *Economic Order Quantity* (EOQ), dan *Reorder Point* (ROP) sehingga dapat berguna untuk pengambilan kebijakan dimasa yang akan datang agar semakin efektif dan efisien pengelolaan pengendalian persediaan obat di Apotek X Duri.

1.5 Batasan Masalah

Adapun batasan masalah dalam penelitian ini adalah sebagai berikut:

1. Data obat paten yang digunakan berupa data sekunder mulai dari Januari 2021–Desember 2021 yang diambil dari Apotek X Duri.
2. Tidak mendapatkan diskon dari *supplier*.

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1.6 Posisi Penelitian

Adapun posisi penelitian ini adalah sebagai berikut:

Tabel 1.3 Posisi Penelitian

No	Judul dan Penulis	Tahun	Permasalahan	Metode	Hasil
1.	Analisis Manajemen Persediaan Bahan Baku Dodol Picnic Dengan Pendekatan Metode ABC Dan <i>Economic Order Quantity</i> (EOQ) (Aliscaputri dan Widiyanesti)	2018	Permasalahan yang terjadi adalah kekurangannya persediaan, serta perusahaan tidak pernah memperhitungkan jumlah perkiraan permintaan bahan baku	Metode ABC dan EOQ	Pengadaan untuk semua bahan baku Dodol Picnic Aneka Rasa (Durian, Wijen, dan Coklat) lebih baik menggunakan metode EOQ karena jumlah kuantitas yang dipesan untuk setiap kali pemesanan lebih banyak dengan jumlah frekuensi pemesanan yang lebih sedikit, sehingga dapat menghemat biaya pemesanan dan biaya penyimpanan.
2.	Optimasi Persediaan Bahan Baku Dengan Metode ABC dan <i>Periodic Review</i> PT XYZ (Muhammad Nazil Fiqam)	2019	Permasalahan yang dialami perusahaan adalah sering terjadinya pengeluaran biaya yang berlebih	Metode ABC dan Periodic Review	Pengendalian persediaan dengan metode periodic review dapat menurunkan biaya pesan sebesar 14,16% dibandingkan dengan pembelian yang dilakukan PT XYZ.
3.	Analisis Pengendalian Persediaan Bahan Baku Kerupuk Mentah Potato dan Kentang Keriting Menggunakan Metode <i>Economic Order Quantity</i> (EOQ) (Efendi, et al.)	2019	PT. Surya Indah Food Multirasa masih mengalami kendala kekurangan bahan baku potato dan kentang keriting disetiap tahun, yang berimbas kehilangan penjualan.	EOQ	Hasil analisis EOQ menunjukkan metode EOQ lebih hemat dibanding kebijakan perusahaan dengan selisih rata-rata pada bahan baku potato ialah Rp. 856.124 dan kentang keriting sebesar Rp. 1.065.989. Nilai EOQ rata-rata pada bahan baku potato ialah 344 kg sedangkan kentang keriting 234 kg.

Tabel 1.3 Posisi Penelitian (Lanjutan)

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No	Judul dan Penulis	Tahun	Permasalahan	Metode	Hasil
4.	Analisis Perencanaan Pengadaan Obat Antibiotik Berdasarkan Metode ABC Indeks Kritis Di Instalasi Farmasi Rumah Sakit Umum Daerah Luwuk (Malota, et al.)	2019	Pengadaan yang terlalu sedikit dapat menyebabkan terjadinya <i>stock out</i> , yaitu keadaan dimana persediaan farmasi yang dibutuhkan kosong sehingga permintaan tidak dapat dipenuhi.	Metode ABC Indeks Krisis	Hasil penelitian menunjukkan bahwa terdapat, 3 jenis obat (7.50%) merupakan kelompok A, 19 jenis obat (47.50%) merupakan kelompok B, dan 18 jenis obat (45.00%) termasuk dalam kelompok C.
5.	Analisis Pengendalian Persediaan Obat Bpjs Dengan Metode Metode ABC, Metode <i>Economic Order Quantity</i> (EOQ), Dan <i>Reorder Point</i> (ROP) Di Instalasi Farmasi Rumah Sakit Hermina Ciputat (Melizza, et al.)	2021	Pengendalian persediaan obat BPJS di Instalasi Farmasi RS Hermina Ciputat belum menggunakan metode pengendalian khusus, baik untuk prioritas jenis persediaan, jumlah pemesanan maupun waktu pemesanan obat	Metode ABC, EOQ, ROP	Dari hasil penelitian melalui Metode ABC, terdapat 17 jenis obat yang tergolong kelompok A, metode EOQ jumlah pemesanan optimum untuk 17 obat. Berdasarkan metode ROP diperoleh waktu pemesanan kembali yang bervariasi mulai dari 66 – 5555 item.
6.	<i>Abc Analysis, Forecasting And Economic Order Quantity (EOQ) Implementation To Improve Smooth Operation Process</i> (Imarah dan Jaelani)	2020	Menguji efektivitas beberapa metode pengendalian persediaan untuk meningkatkan kelancaran operasional pada perusahaan perdagangan komponen peralatan industri yang mengalami kesulitan dalam menjaga keakuratan data persediaan.	Metode ABC dan EOQ	Hasil penelitian menunjukkan bahwa penerapan analisis ABC efektif mengurangi beban kerja penghitungan periodik. Metode peramalan <i>exponential smoothing</i> menunjukkan kesenjangan terkecil dengan nilai aktual dan EOQ secara efektif mengoptimalkan biaya pemesanan

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1.7 Sistematika Penulisan

Adapun sistematika penulisan yang dijadikan acuan dalam pembuatan laporan ini adalah sebagai berikut:

BAB I PENDAHULUAN

Bab ini berisikan tentang latar belakang, tujuan penelitian, manfaat penelitian, batasan masalah, posisi penelitian dan sistematika penulisan laporan.

BAB II LANDASAN TEORI

Bab ini berisikan tentang teori-teori yang berhubungan dengan Pengendalian Persediaan, Metode ABC, Metode *Economic Order Quantity* (EOQ), *Reorder Point* (ROP). Materi yang didapatkan bersumber dari jurnal, buku, dan media lainnya.

BAB III METODOLOGI PENELITIAN

Bab ini berisikan tentang metodologi penelitian yang digunakan dalam penelitian, terdiri dari studi pendahuluan, studi literatur, identifikasi masalah, rumusan masalah, tujuan masalah, pengumpulan data serta pengolahan data, analisa, kesimpulan dan saran.

BAB IV PENGUMPULAN DAN PENGOLAHAN DATA

Pada bab ini berisi data yang telah dikumpulkan serta menjelaskan mengenai langkah-langkah yang digunakan pada Metode ABC, Metode *Economic Order Quantity* (EOQ), *Reorder Point* (ROP) yang berguna untuk menyelesaikan permasalahan pengendalian persediaan obat pada Apotek X Duri.

BAB V ANALISA

Bab ini berisikan tentang analisis dari hasil pembahasan mengenai pengumpulan dan pengolahan data yang dilakukan pada bab sebelumnya.

BAB VI PENUTUP

Bab ini menjelaskan tentang kesimpulan dan saran, dimana kesimpulan merupakan hasil dari pengolahan data beserta analisa, sedangkan saran yang ditujukan untuk penelitian selanjutnya.

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BAB II LANDASAN TEORI

2.1 Obat Paten

Obat paten adalah obat jadi dengan nama dagang yang terdaftar atas nama si pembuat atau yang dikuasakannya dan dijual dalam bungkus asli dari pabrik yang memproduksinya. Artinya obat paten adalah obat yang masih ada hak patennya dan hanya bisa diproduksi oleh produsen pemegang patennya. Menurut UU No 13 tahun 2016 Pasal 22 yaitu jangka waktu perlindungan paten diberikan untuk jangka waktu 20 (dua puluh) tahun terhitung sejak tanggal penerimaan. Selama 20 tahun tersebut, perusahaan farmasi memiliki hak eksklusif untuk memproduksi obat tersebut di Indonesia. Perusahaan lain tidak diperbolehkan untuk memproduksi dan menjual obat serupa kecuali jika perusahaan lain memiliki perjanjian khusus dengan pemilik paten (Verawaty et al., 2022).

Pengaturan paten merupakan bentuk perlindungan terhadap penemuan yang memenuhi syarat *patentable* yakni *novelty*, *inventive step*, dan *applicable*, sedangkan yang dilindungi Undang-undang Paten adalah klaim penemuan yaitu siapa yang terlebih dahulu mendaftarkan paten. Tiga bentuk penemuan dan akibat yang ditimbulkan oleh hak paten adalah (Muis, 2019):

1. Penemuan sebuah produk,
2. Penemuan sebuah proses,
3. Penemuan sebuah proses untuk menghasilkan sebuah produk; ditentukan tergantung pada perbedaan dari ketiga bentuk deskriptif penemuan tersebut.

2.2 Persediaan

Persediaan adalah istilah yang diberikan untuk aktiva yang akan dijual dalam kegiatan normal perusahaan atau aktiva yang dimasukkan secara langsung atau tidak langsung ke dalam barang yang akan diproduksi dan kemudian dijual (Arie Pratama & Nurani, 2018).

Persediaan adalah sekumpulan barang yang disimpan untuk dijual dalam operasi bisnis perusahaan dan dapat digunakan dalam proses produksi atau dapat



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digunakan untuk tujuan tertentu. Pengertian lain dari persediaan adalah bahan atau barang yang disimpan untuk memenuhi tujuan tertentu. Misalnya digunakan untuk proses produksi atau perakitan, serta untuk dijual kembali. Pengelolaan data persediaan merupakan salah satu hal penting agar stok yang ada pada gudang dapat dikontrol. Proses pengelolaan persediaan yang baik juga akan menghasilkan informasi yang akurat mengenai stok barang yang ada (Ramdhani Yanuarsyah et al., 2021).

Persediaan menurut Assauri (2016) dikutip oleh Prastyorini (2020), persediaan adalah stok dari suatu item atau sumber daya yang digunakan dalam suatu organisasi perusahaan barang atau jasa. Dan menurut Sutarman (2017) dikutip oleh Prastyorini (2020), persediaan merupakan di dalam rantai pasok bisa dalam bentuk bahan baku, barang dalam proses dan barang jadi, yang bisa diselenggarakan oleh para pemasok, produsen, distributor dan pengecer.

Menurut Tamodia (2013) dikutip oleh Fauziah dan Ratnawati (2018), persediaan merupakan salah satu asset perusahaan. Peranan pengendalian intern dalam hal ini sangatlah penting dalam meningkatkan keamanan persediaan sebagai harta perusahaan, karena cukup banyak jenis produk dan keluar masuknya barang sehingga dikhawatirkan akan terjadi kehilangan ataupun pencurian stock barang. Dalam persediaan barang merupakan yang paling rawan terjadinya tindakan penyelewengan, oleh karena itu di perlunya di suatu sistem pengendalian intern yang memadai untuk mencegah terjadinya penyelewengan oleh pihak-pihak yang menanganinya persediaan.

2.2.1 Jenis-Jenis Persediaan

Menurut Handoko (1999) dikutip oleh Vikaliana et al (2020), jenis persediaan dapat dibedakan atas:

1. Persediaan bahan mentah (*raw material*), yaitu persediaan barang berwujud seperti baja, kayu, dan komponen lainnya yang digunakan dalam peorses produksi.

2. Persediaan komponen-komponen rakitan (*purchased part/components*), yaitu persediaan barang yang terdiri dari komponen yang diperoleh dari perusahaan lain, dimana secara langsung dapat dirakit menjadi suatu produk.
3. Persediaan bahan pembantu atau penolong (*supplies*), yaitu persediaan barang-barang yang diperlukan dalam proses produksi, tetapi tidak merupakan bagian atau komponen barang jadi.
4. Persediaan barang dalam proses (*work in process*), yaitu persediaan barang-barang yang merupakan keluaran dari tiap-tiap bagian dalam proses produksi atau yang telah diolah menjadi suatu bentuk, tetapi masih perlu diproses lebih lanjut menjadi barang jadi.
5. Persediaan barang jadi (*finished goods*), yaitu persediaan barang-barang yang telah selesai diproses atau diolah dalam pabrik dan siap untuk dijual atau dikirim kepada langganan.

2.2.2 Fungsi-Fungsi Persediaan

Menurut Herjanto (2008) dikutip oleh Vikaliana et al (2020), fungsi-fungsi persediaan dapat dikelompokkan ke dalam empat jenis, yaitu:

1. *Fluctuation stock*, merupakan persediaan yang dimaksudkan untuk menjaga terjadi fluktuasi permintaan yang tidak diperkirakan sebelumnya, dan untuk mengatasi bila terjadi kesalahan atau penyimpangan dalam perkiraan penjualan waktu produksi, atau pengiriman barang.
2. *Anticipation stock*, merupakan persediaan untuk menghadapi permintaan yang dapat diramalkan, misalnya pada musim permintaan tinggi, tetapi kapasitas produksi pada saat itu tidak mampu memenuhi permintaan. Persediaan ini juga dimaksudkan untuk menjaga kemungkinan sukarnya diperoleh bahan baku sehingga tidak mengakibatkan terhentinya produksi.
3. *Lot-size Inventory*, merupakan persediaan yang diadakan dalam jumlah yang lebih besar daripada kebutuhan pada saat itu. Persediaan dilakukan untuk mendapatkan keuntungan dari harga barang (berupa diskon) karena membeli dalam jumlah yang besar, atau untuk mendapatkan penghematan dari biaya pengangkutan per unit yang lebih rendah.



4. *Pipeline Inventory*, merupakan persediaan yang dalam proses pengiriman dari tempat asal ke tempat di mana barang itu akan digunakan. Misalnya, barang yang dikirim dari pabrik menuju tempat penjualan, yang dapat memakan waktu beberapa hari atau minggu.

2.3 Pengendalian Persediaan

Menurut Sutarman (2017) dikutip oleh Prastyorini (2020), menyatakan pengendalian persediaan merupakan upaya untuk mengendalikan persediaan oleh pihak manajemen logistik sebuah perusahaan yang selalu dihadapkan kepada biaya yang tidak akan terhindarkan, dan sebagai sebuah keniscayaan karena memiliki persediaan, dan meliputi biaya dan biaya tersebut adalah biaya simpan, biaya pesan, dan biaya jika terjadi kekurangan, dan semua biaya tersebut memiliki karakteristik khusus sehingga harus dipahami oleh pihak perusahaan, terutama yang bertugas menangani bidang logistik.

Sedangkan menurut Zaroni (2019) dikutip oleh Prastyorini (2020), pengendalian persediaan merupakan fungsi penting dalam perusahaan. Persediaan yang berlebih dapat menyebabkan isu likuiditas. Sementara persediaan yang kurang, berakibat pada permasalahan proses produksi dan pemenuhan pemesanan (*order*) pelanggan. Para manajer juga perlu memahami dengan baik pengendalian persediaan secara efektif serta pengaruhnya terhadap kinerja keuangan dan operasional perusahaan yang akan berdampak pada kinerja produktivitas.

Menurut Assauri (2005) dikutip oleh Vikaliana et al (2020), pengendalian persediaan adalah salah satu kegiatan dari urutan kegiatan-kegiatan yang berurutan erat satu sama lain dalam seluruh operasi produksi perusahaan tersebut sesuai dengan apa yang telah direncanakan lebih dahulu baik waktu, jumlah, kuantitas maupun biayanya.

Menurut Baroto (2006) dikutip oleh Vikaliana et al (2020) Pengendalian persediaan merupakan fungsi manajerial yang sangat penting. Bila persediaan diperbanyak, biaya penyimpanan dan modal yang diperlukan akan bertambah. Bila perusahaan menahan terlalu banyak modalnya dalam persediaan, menyebabkan biaya penyimpanan yang berlebihan. Kelebihan persediaan juga membuat modal

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menjadi macet, semestinya modal tersebut dapat diinvestasikan pada sektor lain yang lebih menguntungkan (*opportunity cost*). Sebaliknya bila persediaan berkurang, suatu ketika bias mengalami stock out (kehabisan barang). Bila perusahaan tidak memiliki persediaan yang mencukupi, biaya pengadaan darurat akan lebih mahal. Dampak lain, mungkin kosongnya barang di pasaran dapat membuat konsumen kecewa dan lari ke merek lain.

Menurut Herjanto (2007) dikutip oleh Vikaliana et al (2020), pengendalian persediaan juga dapat diartikan sebagai serangkaian kebijakan pengendalian untuk menentukan tingkat persediaan yang harus di jaga, kapan pesanan untuk menambah persediaan harus dilakukan dan berapa besar pesanan harus diadakan. Pengendalian persediaan menentukan dan menjamin tersedianya persediaan yang tepat dalam kuantitas yang tepat.

Suatu pengendalian persediaan yang dijalankan oleh suatu perusahaan sudah tentu memiliki tujuan-tujuan tertentu. Pengendalian persediaan yang dijalankan adalah untuk menjaga tingkat persediaan pada tingkat yang optimal sehingga diperoleh penghematan-penghematan untuk biaya persediaan tersebut. Hal inilah yang dianggap penting untuk dilakukan perhitungan persediaan sehingga dapat menunjukkan tingkat persediaan yang sesuai dengan kebutuhan dan dapat menjaga kontinuitas produksi dengan pengorbanan atau pengeluaran biaya yang ekonomis.

Tujuan pengelolaan persediaan menurut Ristono (2009) dikutip oleh Vikaliana et al (2020) adalah:

1. Untuk dapat memenuhi kebutuhan atau permintaan konsumen dengan cepat (memuaskan konsumen).
2. Untuk menjaga kontinuitas produksi atau menjaga agar perusahaan tidak mengalami kehabisan persediaan yang mengakibatkan terhentinya proses produksi, hal ini dikarenakan:
 - a. Kemungkinan barang (bahan baku dan penolong) menjadi langka sehingga sulit diperoleh.
 - b. Kemungkinan supplier terlambat mengirimkan barang yang dipesan.
3. Untuk mempertahankan dan bila mungkin meningkatkan penjualan dan laba perusahaan.

4. Menjaga agar pembelian secara kecil-kecilan dapat dihindari, karena dapat mengakibatkan ongkos pesan menjadi besar.
5. Menjaga agar penyimpanan dalam *emplacement* tidak besar-besaran, karena akan mengakibatkan biaya menjadi besar.

3.1 Sistem Pengendalian Persediaan

Sistem pengendalian persediaan dapat didefinisikan sebagai serangkaian kebijakan pengendalian untuk menentukan tingkat persediaan yang harus dijaga, kapan pesanan untuk menambah persediaan harus dilakukan dan berapa besar pesanan harus diadakan. Sistem ini menentukan dan menjamin tersedianya persediaan yang tepat dalam kuantitas dan waktu yang tepat (Vikaliana et al., 2022).

Menurut Rangkuti (2014) dikutip oleh Vikaliana et al (2020) ada 5 macam teknik yang biasa digunakan perusahaan untuk menghitung pengendalian persediaan, yaitu dapat dijelaskan sebagai berikut:

1. Metode ABC
Metode ABC sangat berguna dalam memfokuskan perhatian manajemen terhadap penentuan jenis barang yang paling penting dalam sistem inventori yang bersifat multisistem.
2. Metode Pengendalian/ Pengawasan Persediaan (EOQ)
Pengendalian persediaan merupakan salah satu fungsi manajemen yang dapat dipecahkan dengan menerapkan metode kuantitatif. Konsep ini dapat diterapkan baik untuk industri skala kecil maupun industri skala besar
3. Pengendalian persediaan dalam kondisi tidak tentu dan ada pemesanan kembali model ini dapat sesuai apabila permintaan diketahui berasal dari sejumlah besar sumber yang independen. Secara spesifik, hal ini sering terjadi dalam persediaan berupa barang yang telah jadi (*finished goods*), tetapi jarang barang yang telah jadi (*finished goods*), tetapi jarang ditemukan pada bahan mentah atau bahan setengah jadi yang memerlukan proses pengolahan lebih lanjut.
4. Pengendalian persediaan dalam kondisi tidak tentu dan tidak ada pemesanan kembali Bagian ini akan membahas pemecahan masalah persediaan yang

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kondisinya tidak memungkinkan untuk pemesanan kembali. Produk tersebut secara ekonomi tidak dapat disimpan dalam waktu yang relatif lama.

Sistem Persediaan *Just In Time*

Sistem Just In Time mengacu kepada kartu yang mengizinkan satu departemen dari satu organisasi untuk menghasilkan jumlah minimum dari suatu jenis barang dalam menjawab reaksi dari persyaratan departemen lain. Idennya adalah dengan menggunakan relatif sangat kecil order (atau produksi), dengan relatif *Low Order Points*, sehingga pemenuhan persediaan dapat datang just in time.

Dengan adanya persediaan, produksi tidak perlu dilakukan khusus buat konsumsi, atau sebaliknya tidak perlu konsumsi didesak supaya sesuai dengan kepentingan produksi. Menurut Herjanto (2008) dikutip oleh Vikaliana et al (2020) beberapa manfaat persediaan dalam memenuhi kebutuhan perusahaan, sebagai berikut:

1. Menghilangkan resiko keterlambatan pengiriman bahan baku atau barang yang dibutuhkan perusahaan.
2. Menghilangkan resiko jika material yang dipesan tidak baik sehingga harus dikembalikan
3. Menghilangkan resiko terhadap kenaikan harga barang atau inflasi
4. Untuk menyimpan bahan baku yang dihasilkan secara musiman sehingga perusahaan tidak akan kesulitan jika bahan itu tidak tersedia di pasaran
5. Mendapatkan keuntungan dari pembelian berdasarkan diskon kuantitas
6. Memberikan pelayanan kepada pelanggan dengan tersedianya barang yang diperlukan.

Dalam Nisa (2018) dikutip oleh Abbas et al (2021) untuk dapat mengetahui bahwa pengendalian persediaan tersebut bisa dikatakan efektif, maka ada tiga hal yang harus dijawab yaitu, apa yang harus dikendalikan, berapa banyak yang akan dipesan dan kapan akan dilakukan pemesanan kembali. Metode yang tepat digunakan untuk menjawab pertanyaan tersebut adalah metode Metode ABC untuk mengetahui obat yang menjadi prioritas untuk dikendalikan, metode EOQ untuk mengetahui berapa banyak obat yang harus dipesan dan menggunakan metode ROP



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serta *buffer stock* untuk mengetahui kapan seharusnya dilakukan pemesanan kembali.

2.3.2 Metode ABC

Klasifikasi ABC sering juga disebut sebagai Metode ABC merupakan klasifikasi dari suatu kelompok material dalam susunan menurun berdasarkan biaya penggunaan material itu per periode waktu (harga per unit material dikalikan volume penggunaan dari material itu selama periode tertentu). Periode waktu yang umum digunakan adalah satu tahun (Gaspersz, 2006).

Metode ABC dapat juga diterapkan menggunakan kriteria lain-bukan semata-mata berdasarkan kriteria biaya-tergantung pada faktor-faktor penting apa yang menentukan material itu. Metode ABC umum dipergunakan dalam pengendalian inventori (*inventory control*). Pada dasarnya terdapat sejumlah faktor yang menentukan kepentingan suatu material, yaitu (Gaspersz, 2006):

1. Nilai total uang dari material
2. Biaya per unit dari material.
3. Kelangkaan atau kesulitan memperoleh material.
4. Ketersediaan sumber daya, tenaga kerja, dan fasilitas yang dibutuhkan untuk membuat material itu.
5. Panjang dan variasi waktu tunggu (*lead time*) dari material, sejak pemesanan material itu pertama kali sampai kedatangannya.
6. Ruang yang dibutuhkan untuk menyimpan material itu.
7. Risiko penyerobotan atau pencurian material itu.
8. Biaya kehabisan stok atau persediaan (*stockout cost*) dari material itu.
9. Kepekaan material terhadap perubahan desain

Penggunaan Metode ABC adalah untuk menetapkan (Gaspersz, 2006):

1. Frekuensi penghitungan inventori (*cycle counting*), di mana material-material kelas A harus diuji lebih sering dalam hal akurasi catatan inventori dibandingkan material-material kelas B atau C.
2. Prioritas pembelian (perolehan), di mana aktivitas pembelian seharusnya difokuskan pada bahan-bahan baku bernilai tinggi (*high cost*) dan penggunaan

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dalam jumlah tinggi (*high usage*). Fokus pada material-material kelas A untuk pemasokan (*sourcing*) dan negosiasi.

Keamanan: meskipun nilai biaya per unit merupakan indikator yang lebih baik dibandingkan nilai penggunaan (*usage value*), namun Metode ABC boleh digunakan sebagai indikator dari material-material mana (kelas A dan B) yang seharusnya lebih aman disimpan dalam ruangan terkunci untuk mencegah kehilangan, kerusakan, atau pencurian.

Sistem pengisian kembali (*replenishment systems*), di mana klasifikasi membantu mengidentifikasi metode pengendalian yang digunakan. Akan lebih ekonomis apabila mengendalikan material-material kelas C dan metode-metode yang lebih canggih untuk material-material kelas A dan B.

Keputusan investasi: karena material-material kelas A menggambarkan investasi yang lebih besar dalam inventori, maka perlu lebih berhati-hati dalam membuat keputusan tentang kuantitas pesanan dan stok pengaman terhadap material-material kelas A, dibandingkan terhadap material-material kelas B dan C.

Metode ABC adalah analisis yang mengidentifikasi jenis-jenis obat yang membutuhkan biaya atau anggaran terbanyak karena pemakaian atau harganya yang mahal dengan cara pengelompokan. Kelompok tersebut dibagi menjadi (Rikomah, 2017):

1. Kelompok A

Kelompok A merupakan obat yang menyerap anggaran 70% dengan jumlah obat tidak lebih dari 20%. Obat yang termasuk ke dalam kelompok kelas A adalah kelompok obat yang sangat kritis sehingga perlu dikontrol secara ketat, dan dilakukan monitoring secara terus menerus. Sebagai contoh pasien yang memerlukan obat dengan anggaran terbesar ini yaitu pasien jamkesmas, jalur pelayanan pasien jamkesmas ini memakan anggaran yang besar untuk pengadaan obatnya karena jumlah pasien dengan kartu jamkesmas ini banyak. Kelompok A pemesanan dapat dilakukan dalam jumlah sedikit tetapi frekuensi pemesanan lebih sering dan karena nilai investasinya yang cukup besar berpotensi memberikan keuntungan yang besar pula untuk rumah sakit, maka

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kelompok ini memerlukan pengawasan dan monitoring obat dengan ketat, pencatatan yang akurat dan lengkap, serta pemantauan tetap oleh pengambil keputusan yang berpengaruh, misalnya oleh kepala instalasi farmasi dan kepala bagian logistik secara langsung.

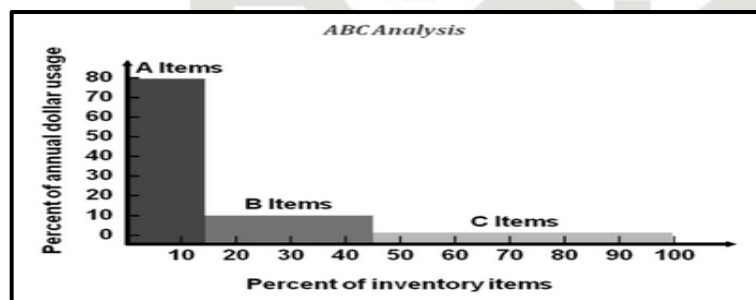
2. Kelompok B

Kelompok B menyerap anggaran 20% dengan jumlah obat sekitar 10-80%. Obat yang termasuk ke dalam kelompok B, pengendalian persediaan obat tidak terlalu ketat seperti kelompok A. namun laporan penggunaannya dan sisa obatnya harus tetap dilaporkan. sehingga pengendalian persediaan selalu dapat dikontrol.

Kekosongan kelompok obat B dapat ditolerir, dengan pemesanan lebih jarang misalnya setiap 2 minggu, tetapi jumlah pemesanan lebih relatif lebih banyak. Pengawasan dan monitoring terhadap kelompok ini tidak terlalu ketat dibandingkan kelompok A. misalnya dilakukan setiap tiga atau enam bulan sekali.

3. Kelompok C

Kelompok C menyerap anggaran 10% dengan jumlah obat sekitar 10-15%. Kelas C. Lebih banyak item obatnya namun tidak berdampak pada aktivitas gudang dan keuangan, karena harganya yang murah dan pemakaiannya sedikit



Gambar 2.1 Contoh Metode ABC
(Sumber: Hidayat, 2019)

3.3 Peramalan

Peramalan adalah alat atau teknik untuk memprediksi atau memperkirakan suatu nilai pada masa mendatang dengan memperhatikan data atau informasi yang relevan, baik data atau informasi masa lalu maupun data atau informasi saat ini, dan peramalan hampir selalu dilakukan oleh setiap orang, baik itu dalam pemerintahan,

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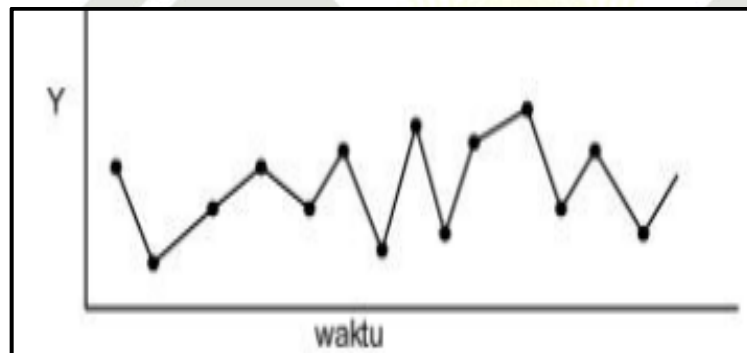
perusahaan, bahkan orang awam sekalipun dengan berbagai macam masalah seperti cuaca, tingkat inflasi, isu politik, dan kurs mata uang suatu Negara (Maricar, 2019).

Peramalan merupakan suatu kegiatan memperkirakan atau memprediksikan kejadian dimasa yang akan datang tentunya dengan bantuan penyusunan rencana terlebih dahulu, dimana rencana ini dibuat berdasarkan kapasitas dan kemampuan permintaan/produksi yang telah dilakukan di perusahaan (Lusiana & Yularty, 2020).

2.3.3.1 Penentuan Pola Data

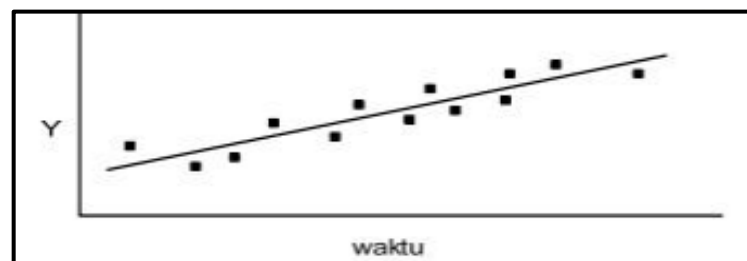
Ploting data harus dilakukan sebelum melakukan metode peramalan untuk menentukan pola data yang terjadi. Dengan data yang ada diperoleh diagram pencarnya. Macam – macam dari plot data adalah sebagai berikut (Latuny dan Picauly, 2019):

1. Konstan, adalah apabila pola data berfluktuasi di sekitar nilai rata – rata yang konstan (deret seperti ini stasioner terhadap nilai rata - ratanya).



Gambar 2.2 Plot Data Konstan
(Sumber: Latuny dan Picauly, 2019)

2. *Linier* atau *Trend*, terjadi saat terdapat kenaikan dan penurunan jangka panjang dalam data



Gambar 2.3 Plot Data Linier atau Trend
(Sumber: Latuny dan Picauly, 2019)

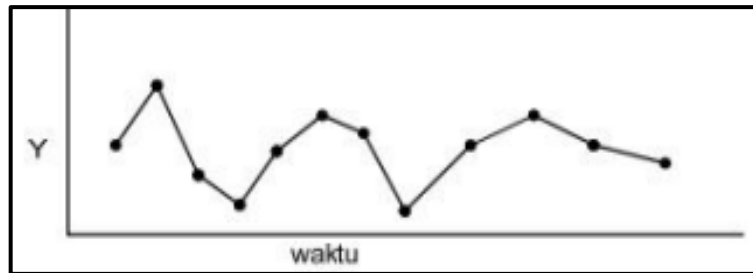
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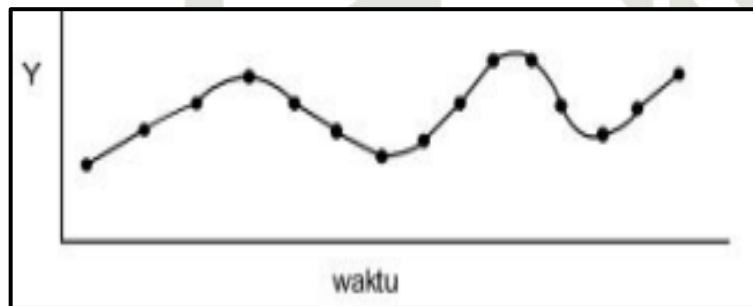
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3. Seasonal (Musiman), adalah fluktuasi permintaan suatu produk dapat naik turun di sekitar garis trend dan biasanya berulang tiap tahun.



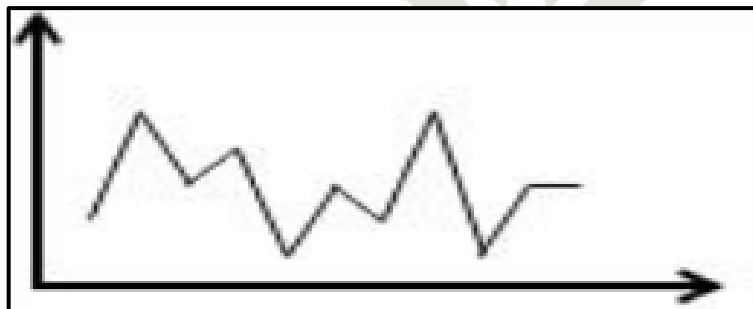
Gambar 2.4 Plot Data Musiman
(Sumber: Latuny dan Picauly, 2019)

4. *Cyclical* (siklis), adalah pola permintaan suatu produk yang mempunyai siklus berulang secara periodik biasanya lebih dari satu tahun, sehingga pola ini untuk peramalan jangka menengah dan panjang.



Gambar 2.5 Plot Data Siklis
(Sumber: Latuny dan Picauly, 2019)

5. Random (acak), adalah tanda dalam data yang disebabkan peluang dan situasi yang tidak biasa, variabel acak mengikuti pola yang tidak dapat dilihat.



Gambar 2.6 Plot Data Acak
(Sumber: Latuny dan Picauly, 2019)

2.3.3.2 Teknik Peramalan

Dalam peramalan terdapat 2 metode umum, yaitu (Maricar, 2019):

1. Metode kualitatif.
Sifatnya adalah intuitif dan biasanya dilakukan ketika tidak adanya data masa lalu atau history, yang mengakibatkan tidak dapatnya dilakukan perhitungan matematis. Biasanya metode kualitatif ini memanfaatkan pendapat-pendapat yang ada dari seorang ahli, sebagai pertimbangan pengambilan keputusan.

2. Metode kuantitatif
Metode kuantitatif dapat dilakukan berdasarkan data sebelumnya atau history, sehingga dapat dilakukan perhitungan secara matematis. Metode yang sangat sering dilakukan dalam peramalan adalah metode kuantitatif yaitu dengan menggunakan *time series*. *Time series* merupakan serangkaian atau sekumpulan data yang tercatat dalam periode tertentu, seperti harian, mingguan, bulanan, maupun tahunan.

a. *Moving average*

Metode rata-rata bergerak tunggal menggunakan sejumlah data aktual permintaan yang baru untuk membangkitkan nilai ramalan untuk permintaan dimasa yang akan datang. Metode ini mempunyai dua sifat khusus yaitu untuk membuat *forecast* memerlukan data historis dalam jangka waktu tertentu, semakin panjang *moving average* akan menghasilkan *moving averages* yang semakin halus. Secara umum rumus dari *moving average* adalah

$$F_t = A_{t-1} + A_{t-2} + A_{t-3} \dots / n \quad \dots(2.1)$$

b. Metode *Weighted Moving Average*

Metode WMA adalah metode rata-rata bergerak yang banyak digunakan untuk menentukan trend dari suatu deret waktu pada beberapa data terakhir. Bobot yang diberikan berbeda-beda untuk setiap data historis masa lalu yang tersedia, dengan asumsi bahwa data historis yang paling terakhir atau terbaru memiliki bobot lebih besar dibandingkan dengan data historis yang lama. Data terbaru merupakan data yang paling relevan untuk peramalan (Ramadania, 2018).

$$F_t = \frac{C_1 X_{t-1} + C_2 X_{t-2} + \dots + C_n X_{t-n}}{C_1 + C_2 + \dots + C_n} \quad \dots(2.2)$$

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c. *Exponential Smoothing*

Metode Exponential Smoothing merupakan teknik peramalan yang digunakan secara umum untuk analisis time series, karena kesederhanaan dan kemudahan dalam prosedur peramalan yang otomatis. Metode exponential smoothing adalah suatu prosedur yang mengulang perhitungan secara terus menerus yang menggunakan data terbaru. Setiap data diberi bobot, di mana bobot yang digunakan disimbolkan dengan alpha. Simbol alpha bisa ditentukan secara bebas, yang mengurangi *forecast error*. Nilai konstanta pemulusan, α , dapat dipilih di antara nilai 0 dan 1, karena berlaku: $0 < \alpha < 1$ (Maricar, 2019).

$$St = \alpha \times A_{t-1} + (1-\alpha) F_{t-1} \quad \dots(2.3)$$

d. Regresi linear

Regresi linier adalah sebuah metode pendekatan untuk pemodelan hubungan antara satu variabel dependen dan satu variabel independen. Dalam regresi, variabel independen menerangkan variabel dependennya. Dalam analisis regresi sederhana, hubungan antar variabel bersifat linear, dimana perubahan pada variabel X akan diikuti oleh perubahan Variabel Y secara tetap. Sementara pada hubungan non linear, perubahan variabel X tidak diikuti variabel Y secara proposional (Muhartini et al., 2021).

$$Y = a + bx^2 \quad \dots(2.4)$$

$$b = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2} \quad \dots(2.5)$$

$$a = \frac{\sum y - b \sum x}{n} \quad \dots(2.6)$$

Keterangan:

Y = Nilai ramalan permintaan pada period ke-t

a = Intersep dari persamaan garis lurus

b = Slope dari persamaan garis lurus

x = Indeks waktu

n = Banyaknya periode waktu

y = Variabel permintaan (data permintaan aktual)

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2.3.3.3 Pengukuran Kesalahan Peramalan

Nilai ukuran kesalahan dilakukan untuk mengetahui ketepatan hasil peramalan yang dilakukan. Ketepatan suatu metode peramalan merupakan kesesuaian dari suatu metode yang pada akhirnya menunjukkan seberapa jauh model peramalan tersebut mampu memprediksi data yang telah diketahui. Setiap metode peramalan pasti menghasilkan kesalahan. Jika tingkat kesalahan yang dihasilkan semakin kecil, maka hasil peramalan semakin mendekati tepat. Jika X_t merupakan data aktual untuk periode ke- t dan F_t merupakan ramalan untuk periode yang sama, maka error didefinisikan sebagai berikut (Ramadania, 2018):

$$e_t = X_t - F_t \quad \dots(2.7)$$

Besarnya kesalahan peramalan dapat dihitung dengan menggunakan beberapa metode perhitungan yaitu (Lusiana & Yuliaty, 2020):

1. MSE (*Mean Square Error*), rata-rata kuadrat kesalahan. Perhitungan eror ini memberikan pinalti pada selisih yang lebih besar dibandingkan selisih yang kecil melalui perhitungan kuadrat dapat dilihat pada persamaan berikut:

$$MSE = \sum \frac{(A_t - F_t)^2}{n} \quad \dots(2.8)$$

Keterangan:

A_t = Permintaan Aktual pada periode- t

F_t = Peramalan Permintaan pada periodet

n = Jumlah Periode Permintaan yang terlibat

2. MAPE (*Mean Absolute Percentage Error*), merupakan rata-rata kesalahan mutlak selama periode tertentu yang dikalikan 100% agar mendapatkan hasil secara persentase dan digunakan jika ukuran variabel yang diramalkan sangat menentukan akurasi peramalan dapat dilihat pada persamaan berikut:

$$MAPE = \left(\frac{100}{n} \right) \sum \left| A_t - \frac{F_t}{A_t} \right| \quad \dots(2.9)$$

3. MAD (*Mean Absolute Deviation*) adalah ratarata kesalahan mutlak selama periode tertentu tanpa memperhatikan apakah hasil peramalan lebih besar atau lebih kecil dari kenyataan. MAD mengukur ketepatan ramalan dengan merata-rata kesalahan dugaan (nilai absolut masing-masing kesalahan) serta MAD

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memberikan bobot yang sama pada setiap nilai selisih peramalan dan aktual dapat dilihat pada persamaan berikut:

$$MAD = \sum \left| \frac{At-Ft}{n} \right| \quad \dots(2.10)$$

2.3.4 Metode EOQ (*Economic Order Quantity*)

Model EOQ merupakan salah satu teknik kontrol pengendalian persediaan yang paling sering digunakan, teknik yang mudah untuk digunakan dengan mengetahui asumsi – asumsi jumlah permintaan diketahui, waktu tunggu atau *lead time* konstan, tidak tersedia diskon kuantitas, biaya variabel hanya biaya pesan dan biaya simpan, dan kehabisan persediaan dapat sepenuhnya dihindari (Dyatmika & Krisnadewara, 2017).

Metode EOQ dipergunakan untuk menentukan jumlah pesanan persediaan yang meminimumkan biaya pemesanan dan biaya penyimpanan. Menurut Satibi (2015) dikutip oleh Rofiq et al (2020), Persediaan yang tinggi berakibat resiko penyimpanan semakin besar, biaya pemeliharaan yang diperlukan juga lebih besar, meskipun dapat memperkecil biaya pemesanan dan distribusi sehingga perlu adanya optimalisasi supaya terbentuk kesetimbangan antara jumlah persediaan dengan biaya pemesanan dan distribusi.

Biaya pemesanan adalah semua biaya yang dikeluarkan perusahaan sehubungan dengan proses pemesanan bahan baku, misalnya: biaya telpon, fax, surat-menyurat, biaya pengangkutan, dll. Biaya simpan perhitungannya didasarkan pada frekwensi pemesanan, yaitu semakin sering memesan maka biaya pemesanan akan semakin besar. Sedangkan biaya penyimpanan merupakan semua biaya yang dikeluarkan sehubungan dengan proses penyimpanan bahan baku, seperti biaya sewa gudang, biaya asuransi, biaya penyusutan dan biaya modal. Besarnya didasarkan pada jumlah barang yang ada di perusahaan dan biasanya ditentukan berdasarkan prosentase dari *cost* (Cahyono, 2005). Berikut ini adalah rumus perhitungan EOQ:

$$Q^* = \sqrt{\frac{2DS}{H}} \quad \dots(2.11)$$



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Di mana:

- D = Banyaknya permintaan pesanan pada periode tertentu
- H = Biaya penyimpanan per pesanan
- S = Biaya pemesanan per pesanan
- Q* = Kuantitas ekonomis barang setiap pemesanan (EOQ)

Selanjutnya, dengan menggunakan rumusan diatas dapat kita temukan banyaknya pemesanan (P) selama periode tertentu yaitu dengan rumus (Heizer dan Render, 2011):

$$P = \frac{D}{Q^*} \dots(2.12)$$

Dimana:

- P = Jumlah pemesanan per tahun
- D = Banyaknya permintaan pada periode tertentu
- Q* = Kuantitas ekonomis barang setiap pemesanan (EOQ)

Untuk menentukan total biaya penyimpanan per tahun, digunakan rumus (Heizer dan Render, 2011):

$$\begin{aligned}
 TH &= \text{Persediaan Rata-rata} \times \text{biaya penyimpanan} \\
 TH &= \frac{Q}{2} \times H \dots(2.13)
 \end{aligned}$$

Dimana:

- TH = Total Biaya Penyimpanan Pertahun

Total biaya pemesanan tahunan (TS) dapat dihitung sebagai jumlah pemesanan per tahun dikalikan dengan biaya per pemesanan, yaitu (Heizer dan Render, 2011):

$$\begin{aligned}
 TS &= \text{Jumlah pemesanan} \times \text{Biaya pemesanan} \\
 TS &= P \times S \\
 TS &= \frac{D}{Q} \times S \dots(2.14)
 \end{aligned}$$

Total biaya persediaan tahunan (TIC) dihitung dengan menjumlahkan total biaya pemesanan (TS) dan total biaya penyimpanan (TH), adalah (Efendi et al., 2019):



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TIC = Biaya pemesanan + Biaya penyimpanan

$$TIC = \frac{D}{Q} S + \frac{Q}{2} H \quad \dots(2.15)$$

Dimana:

TIC = Biaya Total persediaan (*total inventory cost*)

2.3.5 Perhitungan Persediaan Pengaman (*Safety Stock*)

Menurut Hardjanto (2008) dikutip oleh Ryando dan Susanti (2019) persediaan pengaman adalah persediaan yang berfungsi untuk melindungi atau menjaga kemungkinan terjadinya kekurangan barang, misalnya karena penggunaan barang yang lebih besar dari perkiraan semula atau keterlambatan dalam penerimaan barang yang dipesan. Rumus perhitungan *safety stock* adalah:

$$Z = (X - \mu) / \sigma$$

Karena persediaan pengaman merupakan selisih antara $X - \mu$, maka

$$Z = SS / \sigma$$

Atau

$$SS = Z \times \sigma \quad \dots(2.16)$$

Di mana:

Z = Faktor pengaman yang digunakan perusahaan

SS = Persediaan pengaman

σ = Standar deviasi permintaan

Dalam hal ini, faktor pengaman yang dimaksudkan adalah besar probabilitas yang digunakan perusahaan terhadap terjadinya *stockout*. Misalnya, perusahaan menggunakan probabilitas sebesar 5% terjadinya *stockout*, maka dengan menggunakan tabel distribusi frekuensi normal didapat nilai $Z_{0.05} = 1,65$ (Render dan Heizer, 2011).

2.3.6 Reorder Point (ROP)

Menurut Bambang Riyanto (2004) dikutip oleh Ryando dan Susanti (2019) *reorder point* adalah saat atau titik dimana harus diadakan pemesanan serupa,

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sehingga kedatangan atau penerimaan material yang dipesan tepat pada waktu dimana persediaan atas *safety stock* sama dengan nol.

Rumus ROP adalah sebagai berikut (Efendi et al., 2019):

$$ROP = (d \times L) + SS \quad \dots(2.17)$$

Dimana:

ROP = *Reorder Point*

d = permintaan harian

L = *lead time* (waktu tunggu)

SS = persediaan pengaman (*safety stock/buffer stock*)

Jika jumlah pemesanan ulang (ROP) lebih kecil dari jumlah pemesanan (Q) atau $ROP < Q$, maka tidak akan pernah terjadi kekurangan persediaan. Jika jumlah pemesanan ulang (ROP) lebih besar dari jumlah pemesanan (Q) atau $ROP > Q$, maka akan terjadi kekurangan persediaan dalam setiap pemesanan.

2.3.7 Total Biaya Perusahaan

Perhitungan total biaya persediaan atau *Total Inventory Cost (TIC)* pada Perusahaan dengan rumus sebagai berikut (R et al., 2019):

TIC Pabrik = (frekuensi pesan x biaya sekali pesan) + (penggunaan bahan baku selama satu tahun x biaya simpan)

TICper = biaya penyimpanan + biaya pemesanan

$$TICper = (D \times H) + (n \times S) \quad \dots(2.18)$$

Dimana:

TICper = Biaya Persediaan perusahaan

D = Rata-rata penggunaan bahan baku per tahun

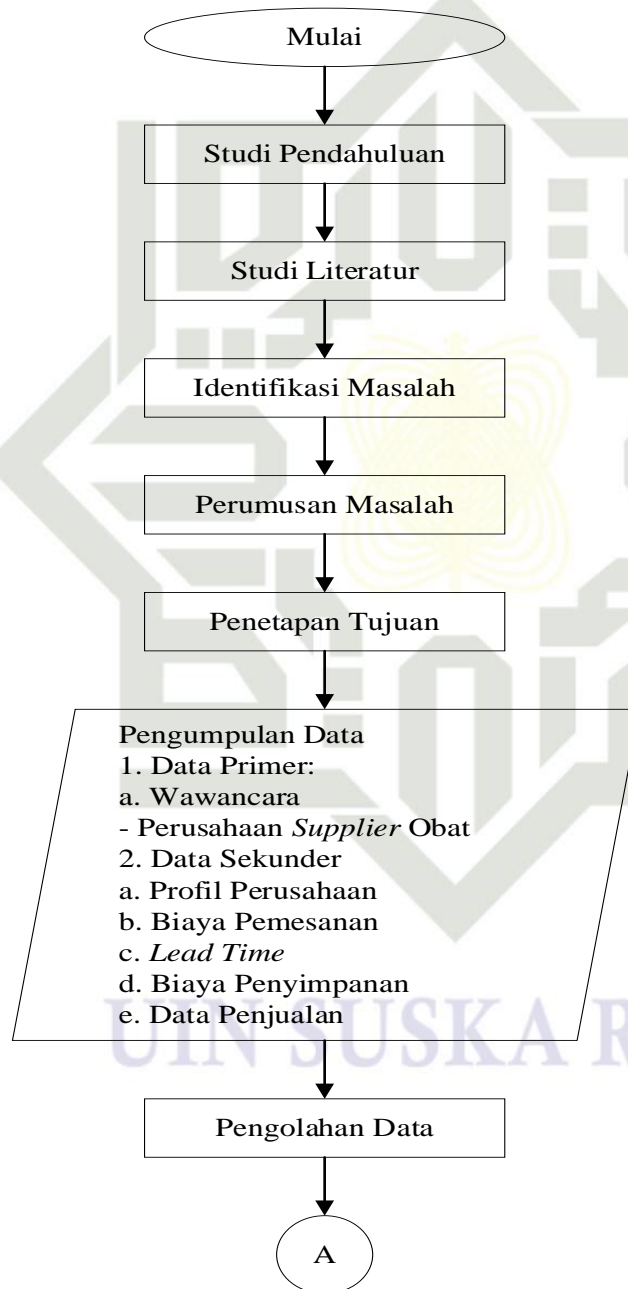
S = Biaya Pemesanan

H = Biaya Penyimpanan

n = Banyak pemesanan per tahun

BAB III METODOLOGI PENELITIAN

Metodologi penelitian berisi pembahasan dan penjelasan tentang langkah-langkah yang akan dilewati dalam melakukan penelitian dengan tujuan agar penelitian lebih terarah dan sistematis. Adapun metodologi penelitian ini dilihat pada Gambar 3.1



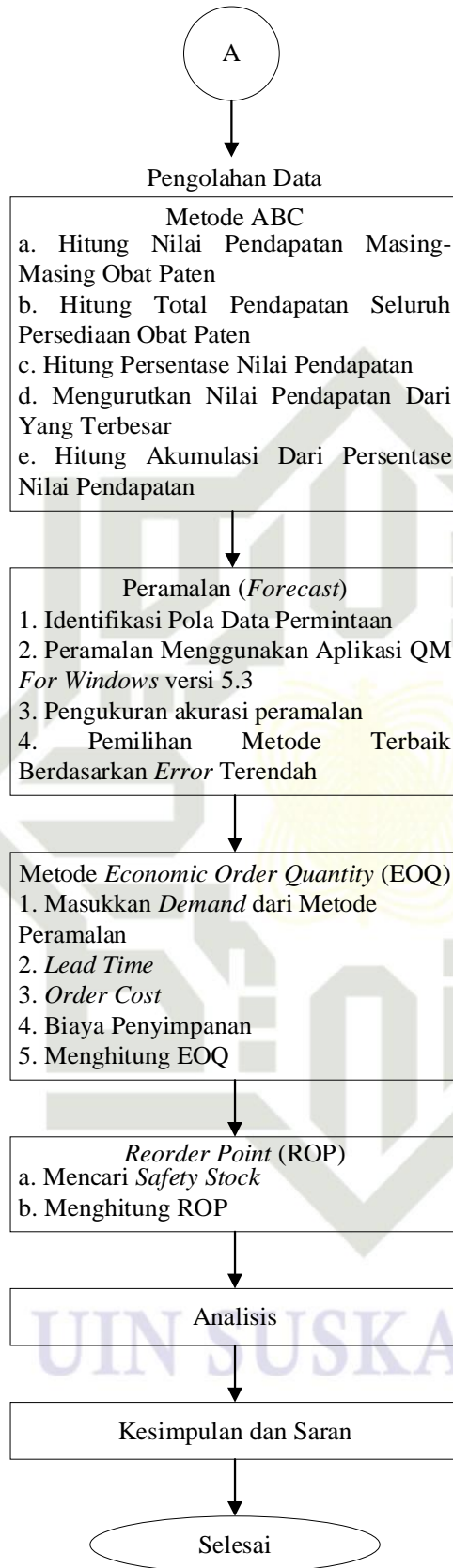
Gambar 3.1 *Flowchart* Metodologi Penelitian

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Gambar 3.2 *Flowchart* Metodologi Penelitian (Lanjutan)

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b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

3.1 Studi Pendahuluan

Studi pendahuluan merupakan langkah awal yang dilakukan sebelum melakukan penelitian. Dalam studi pendahuluan terdapat hal-hal yang melatar belakangi terjadinya penelitian dengan menetapkan tujuan dan manfaat yang ingin dicapai dalam melakukan penelitian. Studi pendahuluan dilakukan untuk mengetahui permasalahan yang ada di Apotek X. Penelitian ini dilakukan dengan cara observasi dan wawancara.

1. Observasi

Observasi yang dilakukan didalam penelitian ini adalah dengan cara datang secara langsung ke Apotek X, yang beralamatkan di Jl. Jendral Sudirman, Kelurahan Duri Barat, Kecamatan Mandau, Kabupaten Bengkalis

2. Wawancara

Wawancara yang dilakukan pada penelitian ini adalah agar dapat mendapatkan informasi secara langsung yang ada pada Apotek X seperti permasalahan persediaan yang dihadapi Apotek pada saat ini.

3.2 Studi Literatur

Studi literatur adalah kegiatan yang berhubungan dengan pengumpulan dan pengolahan data dalam suatu penelitian. Studi literatur merupakan cara yang dipakai untuk menghimpun data-data atau sumber-sumber yang berhubungan dengan topik yang diangkat dalam suatu penelitian. Pada penelitian ini, studi literatur berupa kumpulan teori-teori yang berhubungan dengan pengendalian persediaan, metode analisis ABC, metode *economic order quantity* (EOQ), dan *reorder point* (ROP). Teori tersebut diperoleh dari berbagai sumber yaitu jurnal dan buku.

3.3 Identifikasi Masalah

Tahap selanjutnya adalah melakukan identifikasi masalah. Identifikasi masalah adalah proses dan hasil pengenalan masalah dan proses penelitian bisa dikatakan langkah paling penting diantara langkah-langkah proses lainnya. Berdasarkan hasil wawancara dengan pemilik apotek, masalah utama yang sering terjadi yaitu kekosongan obat dan kelebihan obat, yang mana kelebihan ini terjadi

karena obat yang jarang di beli oleh konsumen tapi apotek terlalu banyak menyimpan *stock* obat tersebut. Sedangkan kekosongan obat terjadi karna keterlambatan dalam pemesanan dan kekosongan obat pada distributor. Oleh karena itu, dilakukanlah penelitian agar dapat memperbaiki perencanaan persediaan obat yang lebih baik lagi, agar dapat mengetahui jumlah obat yang disimpan, waktu pemesanan obat kembali serta jumlah pemesanan obat kembali.

3.4 Perumusan Masalah

Berdasarkan identifikasi masalah, selanjutnya masalah tersebut dirumuskan sehingga menjadi masalah yang akan dianalisa dan diteliti Perumusan masalah bertujuan untuk menentukan masalah apa saja yang akan menjadi fokus untuk mencari solusi dari permasalahan. Perumusan masalah dikategorikan sebagai pertanyaan utama yang dicari dan yang akan dijawab melalui penelitian.

3.5 Penetapan Tujuan

Langkah ini berisikan tujuan penelitian yang dirumuskan untuk dapat menjawab permasalahan yang dihadapi dalam penelitian di Apotek X. Penetapan tujuan sangat penting dilakukan agar penelitian lebih fokus dan terarah sesuai dengan apa yang ingin dicapai. Penetapan tujuan harus jelas, nyata, dan terukur. Maka oleh sebab itu setiap penelitian harus memiliki tujuan yang ingin dicapai Tujuan yang akan dicapai pada penelitian ini adalah untuk melakukan analisis perencanaan pengendalian produksi yang baik menggunakan metode analisis ABC, metode *economic order quantity* (EOQ), dan *reorder point* (ROP) di Apotek X, untuk terhindar dari terjadinya kekosongan obat dan kelebihan obat dan mengetahui jumlah obat yang disimpan, waktu pemesanan obat kembali serta jumlah pemesanan obat kembali

3.6 Pengumpulan Data

Pengumpulan data adalah proses pengumpulan dan pengukuran informasi yang dijadikan objek penelitian. Pengumpulan data bertujuan untuk dapat memungkinkan seseorang menjawab pertanyaan penelitian yang diajukan, menuju

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hipotesis, dan mengevaluasi hasil. Data yang dibutuhkan di dalam penelitian ini adalah data primer dan data sekunder yaitu:

1. Data primer

Data primer ini diperoleh dari hasil melakukan observasi secara langsung Apotek X. Data primer adalah sumber data penelitian yang diperoleh dari hasil wawancara pihak perusahaan untuk menggali informasi atau data yang dibutuhkan untuk pengolahan data selanjutnya. Adapun data yang diperoleh dari hasil wawancara antara lain adalah nama-nama perusahaan yang menjadi *supplier* obat paten pada Apotek X

2. Data sekunder

Data sekunder ini diperoleh dari sumber yang sudah ada yaitu data yang didapatkan dari dalam perusahaan tersebut. Data yang diperoleh antara lain:

- a. Profil perusahaan
- b. Biaya pemesanan
- c. *Lead time*
- d. Biaya penyimpanan
- e. Data penjualan perusahaan.

3.7 Pengolahan Data

Pengolahan data ialah proses, cara, perbuatan mengolah semua keterangan untuk keperluan penelitian yang bersifat teratur (sistematis) dan terencana. Pengolahan data dapat dilakukan setelah proses pengumpulan data yaitu dengan cara wawancara dan observasi langsung. Tahapan dari pengolahan data dalam penelitian ini adalah sebagai berikut:

3.7.1 Metode Analisis ABC

Analisis ABC adalah analisis yang mengidentifikasi jenis-jenis obat yang membutuhkan biaya atau anggaran terbanyak karena pemakaian atau harganya yang mahal dengan cara pengelompokkan. Analisis ABC dilakukan dengan cara sebagai berikut:

- 1. Menghitung nilai pendapatan masing-masing obat paten selama tahun 2021
- 2. Menghitung total pendapatan seluruh persediaan obat paten selama tahun 2021

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3. Menghitung presentase nilai pendapatan dari masing-masing obat paten
4. Mengurutkan obat paten berdasarkan presentase nilai pendapatannya, mulai dari yang terbesar hingga yang terkecil
5. Menghitung akumulasi dari persentase nilai pendapatan obat paten
6. Obat paten kelompok A adalah obat dengan nilai pendapatannya 70% dari keseluruhan pendapatan obat, obat paten kelompok B adalah obat dengan nilai pendapatan 20% dari keseluruhan nilai pendapatan obat, sedangkan obat paten kelompok C adalah obat dengan nilai pendapatan 10% dari keseluruhan nilai pendapatan obat.

3.7.2 Peramalan (*Forecast*)

Setelah obat paten kelompok A didapat, maka dilakukan penerapan metode peramalan untuk meramalkan permintaan pada tahun 2022. Adapun peramalan dilakukan dengan cara sebagai berikut:

1. Identifikasi pola data permintaan
2. Melakukan peramalan dengan menggunakan aplikasi *QM for Windows* versi 5.0
3. Pengukuran akurasi peramalan
4. Menentukan metode terpilih berdasarkan *Error* terkecil.

3.7.3 Metode *Economic Order Quantity* (EOQ)

Setelah *demand* didapat, maka dilakukan penerapan metode *Economic Order Quantity* (EOQ). Metode ini digunakan untuk menentukan jumlah setiap pemesanan persediaan yang meminimumkan biaya pemesanan dan penyimpanan sehingga total biaya persediaan menjadi efisien. Pada metode ini juga dapat menentukan berapa kali obat tersebut dipesan dalam satu tahun pada setiap obat paten kelompok A.

Langkah-langkah perhitungan *Economic Order Quantity* pada obat paten adalah sebagai berikut:

1. Menghitung *demand* atau kebutuhan obat selama satu tahun, yaitu dimulai dari Bulan Januari 2021 sampai Bulan Desember 2021 (*forecast*).

2. *Lead Time* atau waktu tunggu yang diperlukan mulai saat pemesanan dilakukan sampai obat tersebut tiba di Apotek, didapatkan berdasarkan hasil wawancara dengan pemilik Apotek.
3. *Order Cost* atau biaya setiap kali melakukan pemesanan yang terdiri dari biaya telepon, alat tulis adalah sebesar Rp. 1.500, didapatkan berdasarkan hasil wawancara dengan pemilik Apotek.

4. Biaya penyimpanan

5. Kemudian melakukan perhitungan Metode EOQ.

Berikut adalah rumus yang diakan dipakai:

$$Q^* = \sqrt{\frac{2DS}{H}}$$

3.7.3 Reorder Point (ROP)

Sebelum melakukan perhitungan ROP, maka harus melakukan penentuan *safety stock* atau persediaan pengaman. Setelah mengetahui *safety stock*, maka dilakukan perhitungan ROP. *Reorder Point* (ROP) adalah menunjukkan suatu tingkat persediaan dimana pada saat itu harus dilakukan pemesanan. Titik pemesanan ulang terjadi apabila jumlah persediaan yang terdapat di dalam stok berkurang terus, oleh karena itu perusahaan menentukan titik pemesanan ulang yang harus dilakukan perusahaan agar tidak kehabisan stok (*stockout*) maupun kelebihan stok (*over stock*).

Langkah-langkah perhitungan *Reorder Point* pada obat paten adalah sebagai berikut:

1. Mencari *safety stock* atau menghitung persediaan pengaman. Perusahaan menggunakan probabilitas sebesar 5% terjadinya *stockout*, maka dengan menggunakan tabel distribusi frekuensi normal didapat nilai $Z_{0.05} = 1,65$ (Render dan Heizer, 2011).
2. Kemudian melakukan perhitungan ROP.

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3.8

Analisis

Berdasarkan hasil pengolahan data pada pengendalian persediaan obat paten menggunakan metode analisis ABC, metode *economic order quantity* (EOQ), dan *reorder point* (ROP), selanjutnya akan dianalisis lebih mendalam terhadap hasil pengolahan data yang telah dilakukan. Analisa ini bertujuan agar dapat menyusun data dengan cara yang bermakna sehingga mudah dipahami oleh pembaca. Analisa dilakukan terhadap data yang telah diolah sehingga mendapatkan kesimpulan di dalam penelitian.

3.9

Kesimpulan dan Saran

Kesimpulan dan saran dilakukan setelah hasil analisis dibuat. Langkah selanjutnya membuat kesimpulan yang didapat dari hasil penelitian tersebut. Kesimpulan yang didapat akan menjadi hasil akhir dari penelitian yang sudah dilakukan. Serta memberikan saran yang berguna kepada Apotek X sebagai upaya dalam melakukan perencanaan dan pengendalian obat paten yang baik bagi apotek tersebut.

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BAB VI PENUTUP

6.1 Kesimpulan

Berdasarkan hasil penelitian dan pembahasan pada bab sebelumnya, dapat diambil suatu kesimpulan sebagai berikut:

1. Dengan menggunakan metode ABC dapat diketahui bahwa obat paten yang harus diprioritaskan adalah 31 jenis obat yang mana obat tersebut memiliki nilai investasi yang sangat tinggi berjumlah Rp. 241.561.000 dari total Rp. 347.909.500, sehingga diperlukan pengawasan yang ketat dalam pengendalian persediaannya.

2. Pada perhitungan EOQ didapatkan jumlah optimum pemesanan obat adalah pada Ventolin Inhaler sebanyak 59,579 botol dengan frekuensi pemesanan sebanyak 4,634 kali, hasil rekapitulasi perhitungan EOQ dapat dilihat di Tabel 4.38. Berdasarkan perhitungan EOQ kepada 31 obat paten jenis A didapatkan rata-rata jumlah optimum pemesanan obat sebanyak 80 buah dan frekuensi pemesanan adalah sebanyak 2 kali. Saat menggunakan metode EOQ pemesanan obat paten lebih optimal, yang mana hal ini dapat dibuktikan dengan jumlah pemesanan obat di minimumkan untuk mengurangi biaya persediaan yang berlebihan. Dimana diketahui bahwa biaya persediaan menurut EOQ adalah Rp. 380.051,757 sedangkan biaya persediaan menurut Apotek X adalah Rp. 963.550,130, sehingga saat menggunakan Metode EOQ Rp. 582.498,373.

Pada perhitungan ROP dapat diketahui bahwa obat Ventolin Inhaler harus dilakukan pemesanan kembali pada saat *stock*nya berjumlah 0,618 botol atau sama dengan 1 botol, hasil rekapitulasi perhitungan ROP dapat dilihat dalam Tabel 4.41. Dan berdasarkan perhitungan ROP keseluruhan didapatkan rata-rata pemesanan adalah sebanyak 1 obat, apabila setiap *stock* obat tersisa 1 buah, maka pihak apotek harus melakukan pemesanan kembali dengan jumlah persediaan berdasarkan Metode EOQ.

Rekomendasi atau usulan pengendalian persediaan Obat Paten jenis A berdasarkan hasil penelitian sebagai contoh pada Obat Paten Merk Ventolin Inhaler ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 60 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 5 kali. Kemudian untuk rekomendasi Obat Paten Jenis A lainnya dapat dilihat pada Tabel 4.43. Dimana seluruh obat yang termasuk ke dalam Tabel 4.43 ini merupakan kelompok obat yang termasuk ke dalam kelompok A, karena kelompok A ini yang memberikan benefit paling besar kepada Apotek. Oleh sebab itu, kelompok obat ini harus lebih di utamakan dalam pengendalian persediaannya. Kemudian di harapkan Apotek dapat melakukan pengecekan obat minimal 3 kali dalam seminggu, untuk menghindari kekosongan obat, dan apotek diharapkan lebih mendahulukan obat yang sudah di pesan pada saat periode sebelumnya terjual lebih dahulu agar tidak kadaluwarsa.

6.2 Saran

Adapun saran yang dapat diberikan pada penelitian ini adalah sebagai berikut:

1. Dari hasil penelitian penulis menyarankan agar Apotek X mempertimbangkan untuk menggunakan metode analisis ABC dalam menentukan obat paten yang diprioritaskan dan metode EOQ untuk melakukan kebijakan pemesanan yang minimum pada obat yang diprioritaskan, sebagai upaya untuk mengurangi biaya persediaan yang berlebihan.
2. Bagi peneliti selanjutnya dapat mempertimbangkan metode terbaru dalam pengendalian persediaan untuk mengurangi kesalahan pada Metode EOQ terdahulu

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DATA OBAT PATEN 2021

No	Nama Obat	Harga Jual	Bulan Januari					Bulan Februari					Bulan Maret				
			Ter sedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter sedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter sedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian
1	Indinon 400 Mg	27000	46 strip	11 strip	35 strip	5 strip	135000	30 strip	14 strip	16 strip	-	-	16 strip	12 strip	4 strip	-	-
2	Albion 400 Mg	10000	22 strip	3 strip	19 strip	-	-	19 strip	10 strip	9 strip	-	-	9 strip	8 strip	1 strip	-	-
3	Albion 400 Mg	7000	20 strip	20 strip	0	-	-	40 strip	23 strip	17 strip	-	-	37 strip	19 strip	18 strip	-	-
4	Albion 400 Mg	3000	21 strip	10 strip	11 strip	-	-	11 strip	6 strip	11 strip	-	-	11 strip	9 strip	2 strip	-	-
5	Albion 400 Mg	60000	30 botol	6 botol	24 botol	4 botol	240000	20 botol	8 botol	12 botol	-	-	12 botol	5 botol	7 botol	-	-
6	Albion 400 Mg	21000	5 botol	3 botol	2 botol	-	-	7 botol	5 botol	2 botol	-	-	7 botol	4 botol	3 botol	-	-
7	Albion 400 Mg	10000	50 strip	44 strip	6 strip	-	-	46 strip	40 strip	6 strip	-	-	46 strip	45 strip	1 strip	-	-
8	Albion 400 Mg	15000	29 strip	6 strip	23 strip	-	-	14 strip	10 strip	4 strip	-	-	24 strip	7 strip	17 strip	5 strip	75000
9	Albion 400 Mg	14000	20 strip	14 strip	6 strip	-	-	26 strip	12 strip	24 strip	5 strip	70000	19 strip	15 strip	4 strip	-	-
10	Albion 400 Mg	105000	5 tube	1 tube	4 tube	2 tube	210000	7 tube	3 tube	4 tube	-	-	4 tube	2 tube	2 tube	-	-
11	Albion 400 Mg	90000	5 tube	5 tube	0	-	-	10 tube	6 tube	4 tube	-	-	4 tube	4 tube	0	-	-
12	Albion 400 Mg	5000	22 strip	4 strip	18 strip	3 strip	15000	15 strip	8 strip	7 strip	-	-	27 strip	10 strip	17 strip	-	-
13	Albion 400 Mg	5000	20 strip	5 strip	15 strip	-	-	15 strip	8 strip	7 strip	5 strip	25000	22 strip	10 strip	12 strip	-	-
14	Albion 400 Mg	55000	20 strip	1 strip	19 strip	4 strip	220000	15 strip	4 strip	11 strip	-	-	11 strip	5 strip	6 strip	-	-
15	Albion 400 Mg	3000	20 strip	18 strip	2 strip	-	-	22 strip	20 strip	2 strip	-	-	22 strip	17 strip	5 strip	-	-
16	Albion 400 Mg	65000	5 tube	2 tube	3 tube	-	-	3 tube	2 tube	1 tube	-	-	1 tube	1 tube	0	-	-
17	Albion 400 Mg	226000	19 botol	1 botol	18 botol	7 botol	1582000	11 botol	3 botol	8 botol	-	-	6 botol	2 botol	4 botol	-	-
18	Albion 400 Mg	30000	34 strip	7 strip	27 strip	9 strip	270000	18 strip	12 strip	6 strip	-	-	18 strip	9 strip	9 strip	-	-
19	Albion 400 Mg	7000	29 strip	2 strip	27 strip	-	-	18 strip	5 strip	13 strip	6 strip	42000	7 strip	4 strip	3 strip	-	-
20	Albion 400 Mg	6000	20 strip	9 strip	11 strip	-	-	11 strip	7 strip	4 strip	-	-	24 strip	10 strip	14 strip	3 strip	18000
21	Albion 400 Mg	10000	20 strip	9 strip	11 strip	-	-	11 strip	7 strip	4 strip	-	-	24 strip	10 strip	14 strip	-	-
22	Albion 400 Mg	120000	23 strip	2 strip	21 strip	4 strip	480000	17 strip	5 strip	12 strip	-	-	12 strip	4 strip	8 strip	-	-
23	Albion 400 Mg	65000	10 botol	6 botol	4 botol	-	-	9 botol	5 botol	4 botol	-	-	9 botol	7 botol	2 botol	-	-
24	Albion 400 Mg	290000	23 strip	2 strip	21 strip	3 strip	870000	18 strip	7 strip	11 strip	-	-	11 strip	3 strip	8 strip	-	-
25	Albion 400 Mg	20000	45 strip	27 strip	18 strip	5 strip	100000	33 strip	32 strip	1 strip	-	-	41 strip	30 strip	11 strip	-	-
26	Albion 400 Mg	20000	40 strip	28 strip	12 strip	-	-	32 strip	24 strip	18 strip	-	-	38 strip	28 strip	10 strip	-	-
27	Albion 400 Mg	95000	10 botol	8 botol	2 botol	1 botol	95000	6 botol	6 botol	0	-	-	10 botol	8 botol	2 botol	-	-

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga



DATA OBAT PATEN 2021

28	Lansoson Mg	80000	26 strip	4 strip	22 strip	6 strip	480000	16 strip	6 strip	10 strip	-	-	10 strip	5 strip	5 strip	-	-
29	Lanzilol 15 ml	40000	10 botol	8 botol	2 botol	-	-	7 botol	7 botol	0	-	-	10 botol	9 botol	1 botol	-	-
30	Mezigo Mg	50000	20 strip	4 strip	16 strip	-	-	16 strip	2 strip	14 strip	6 strip	300000	8 strip	4 strip	4 strip	-	-
31	Sexalin	12000	60 strip	54 strip	6 strip	-	-	66 strip	56 strip	10 strip	-	-	50 strip	50 strip	0	-	-
32	Molaxan	10000	40 strip	22 strip	18 strip	-	-	38 strip	25 strip	13 strip	-	-	33 strip	20 strip	13 strip	6 strip	60000
33	Molaxan 5 Mg	13000	20 strip	10 strip	10 strip	-	-	10 strip	9 strip	11 strip	-	-	11 strip	10 strip	1 strip	-	-
34	Molaxan Sirup	33000	5 botol	2 botol	3 botol	-	-	3 botol	3 botol	0	-	-	5 botol	5 botol	0	-	-
35	Molasic	7000	20 strip	5 strip	15 strip	-	-	15 strip	8 strip	7 strip	-	-	7 strip	5 strip	2 strip	-	-
36	Mupopet 15 Mg/5ml	82000	10 botol	2 botol	8 botol	-	-	8 botol	3 botol	5 botol	-	-	5 botol	5 botol	0	-	-
37	Muzalol (Ketoconazole) 100 mg	4000	20 strip	11 strip	9 strip	-	-	29 strip	10 strip	19 strip	-	-	19 strip	15 strip	4 strip	-	-
38	Nyonal	110000	45 strip	2 strip	43 strip	11 strip	1210000	32 strip	4 strip	28 strip	-	-	28 strip	3 strip	25 strip	-	-
39	Neccein Powder 5gr	25000	10 botol	8 botol	2 botol	-	-	7 botol	7 botol	0	-	-	10 botol	8 botol	2 botol	-	-
40	Neuralgin	10000	40 strip	21 strip	19 strip	-	-	39 strip	23 strip	16 strip	-	-	36 strip	22 strip	14 strip	-	-
41	Nexa 500 Mg	3000	36 strip	1 strip	37 strip	9 strip	27000	28 strip	5 strip	23 strip	-	-	23 strip	4 strip	19 strip	-	-
42	Nexam 40 Mg	200000	20 strip	6 strip	14 strip	-	-	14 strip	4 strip	10 strip	5 strip	1000000	25 strip	6 strip	19 strip	-	-
43	Norvom	3000	20 strip	4 strip	16 strip	-	-	16 strip	7 strip	9 strip	-	-	9 strip	5 strip	4 strip	-	-
44	Noxicam	1500	20 strip	18 strip	2 strip	-	-	22 strip	20 strip	2 strip	-	-	42 strip	23 strip	19 strip	7 strip	10500
45	Nursin 400 Mg	15000	20 strip	5 strip	15 strip	-	-	15 strip	8 strip	7 strip	-	-	27 strip	8 strip	19 strip	8 strip	120000
46	Nurizol	4000	20 strip	11 strip	9 strip	-	-	29 strip	13 strip	16 strip	-	-	16 strip	12 strip	4 strip	-	-
47	Nurmeten 25 Mg	4000	20 strip	12 strip	8 strip	-	-	28 strip	11 strip	17 strip	-	-	17 strip	13 strip	4 strip	-	-
48	Nurotroces	16000	40 strip	26 strip	14 strip	-	-	34 strip	24 strip	10 strip	-	-	30 strip	25 strip	5 strip	-	-
49	Nurotroces 500 Mg	5000	20 strip	16 strip	4 strip	-	-	24 strip	19 strip	5 strip	-	-	25 strip	17 strip	8 strip	-	-
50	Nurotroces 500 Mg/5Mg	8000	20 strip	9 strip	11 strip	-	-	11 strip	10 strip	1 strip	-	-	21 strip	12 strip	9 strip	-	-
51	Inflason	4000	20 strip	17 strip	3 strip	-	-	23 strip	16 strip	7 strip	-	-	27 strip	18 strip	9 strip	-	-
52	Inferdoxin 100 Mg	40000	32 strip	1 strip	31 strip	8 strip	320000	23 strip	4 strip	19 strip	-	-	19 strip	3 strip	16 strip	-	-
53	Kalbetasone 0,5 Mg	2000	27 strip	2 strip	25 strip	5 strip	10000	20 strip	7 strip	13 strip	-	-	13 strip	4 strip	9 strip	-	-
54	Katitra 500 Mg	8000	20 strip	2 strip	18 strip	-	-	18 strip	5 strip	13 strip	-	-	13 strip	4 strip	9 strip	-	-
55	Klorofeson Cream	10000	10 tube	6 tube	4 tube	-	-	9 tube	5 tube	4 tube	-	-	9 tube	7 tube	2 tube	-	-
56	Klotema Lotion 30 ml	100000	35 botol	2 botol	27 botol	-	-	8 botol	4 botol	4 botol	-	-	4 botol	3 botol	1 botol	-	-

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga

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57	500 Mg	40000	20 strip	12 strip	8 strip	-	-	28 strip	15 strip	13 strip	8 strip	320000	25 strip	13 strip	12 strip	-	-
58	Sup	48000	28 botol	1 botol	27 botol	6 botol	288000	21 botol	3 botol	18 botol	-	-	18 botol	2 botol	16 botol	-	-
59	cosin	15000	20 strip	11 strip	9 strip	-	-	29 strip	13 strip	16 strip	-	-	16 strip	12 strip	4 strip	-	-
60	cream 1%	45000	5 tube	3 tube	2 tube	-	-	7 tube	4 tube	3 tube	-	-	8 tube	4 tube	4 tube	-	-
61	Suratam	10000	20 strip	1 strip	19 strip	-	-	19 strip	5 strip	14 strip	4 strip	40000	10 strip	3 strip	7 strip	-	-
62	soluslu	8000	40 strip	26 strip	14 strip	-	-	34 strip	30 strip	4 strip	-	-	44 strip	29 strip	15 strip	-	-
63	Nilval	74000	10 botol	2 botol	8 botol	-	-	8 botol	3 botol	5 botol	3 botol	222000	7 botol	3 botol	4 botol	-	-
64	10 Mg	20000	20 strip	3 strip	17 strip	-	-	17 strip	5 strip	12 strip	-	-	12 strip	4 strip	8 strip	5 strip	100000
65	Onigestic	5000	20 strip	11 strip	9 strip	-	-	29 strip	14 strip	15 strip	-	-	15 strip	13 strip	2 strip	-	-
66	nestan	5000	20 strip	5 strip	15 strip	-	-	15 strip	7 strip	8 strip	-	-	8 strip	8 strip	0	-	-
67	ticobal	3000	23 strip	2 strip	21 strip	3 strip	9000	18 strip	9 strip	9 strip	-	-	9 strip	3 strip	6 strip	-	-
68	125 Mg Supos	20000	5 supos	5 Supos	0	-	-	10 supos	8 supos	2 supos	-	-	7 supos	6 supos	1 supos	-	-
69	10 Mg	260000	20 strip	2 strip	18 strip	-	-	18 strip	4 strip	14 strip	3 strip	780000	11 strip	3 strip	8 strip	-	-
70	100 Mg Capsule	70000	10 botol	4 botol	6 botol	-	-	6 botol	5 botol	1 botol	-	-	6 botol	4 botol	2 botol	-	-
71	panotab	4000	20 strip	7 strip	13 strip	-	-	13 strip	9 strip	4 strip	-	-	24 strip	12 strip	12 strip	-	-
72	Parfar Plus	3000	60 strip	41 strip	19 strip	-	-	39 strip	39 strip	0	-	-	60 strip	45 strip	15 strip	-	-
73	racfar 40 Mg	6500	20 strip	2 strip	18 strip	-	-	18 strip	5 strip	13 strip	5 strip	32500	8 strip	6 strip	2 strip	-	-
74	rimindex Tablet	6000	20 strip	3 strip	17 strip	-	-	17 strip	6 strip	11 strip	-	-	11 strip	5 strip	6 strip	-	-
75	Pragalalin 75 Mg	65000	20 strip	6 strip	14 strip	-	-	14 strip	5 strip	9 strip	-	-	9 strip	8 strip	1 strip	-	-
76	tonicy	4000	60 strip	48 strip	12 strip	-	-	52 strip	47 strip	5 strip	-	-	45 strip	45 strip	0	-	-
77	Roxxona	3000	20 strip	3 strip	17 strip	-	-	17 strip	9 strip	8 strip	-	-	8 strip	7 strip	1 strip	-	-
78	Ranitel 10mg/5 ml Sirup 80 ml	70000	10 botol	2 botol	8 botol	-	-	8 botol	4 botol	4 botol	2 botol	140000	7 botol	3 botol	4 botol	-	-
79	Quantidex	5000	20 strip	6 strip	14 strip	-	-	14 strip	10 strip	4 strip	-	-	24 strip	7 strip	18 strip	4 strip	20000
80	Rephyl Sr 300 mg	15000	20 strip	11 strip	9 strip	-	-	29 strip	13 strip	16 strip	-	-	16 strip	12 strip	4 strip	-	-
81	hemafar 4 Mg	5000	40 strip	24 strip	16 strip	-	-	36 strip	26 strip	10 strip	-	-	30 strip	30 strip	0	-	-
82	Rhinofed	45000	20 strip	9 strip	11 strip	-	-	11 strip	11 strip	0	-	-	20 strip	9 strip	11 strip	-	-
83	roferton 30 mg	6000	20 strip	11 strip	9 strip	-	-	29 strip	13 strip	16 strip	-	-	16 strip	12 strip	4 strip	-	-
84	Ryvel Sirup	60000	10 botol	4 botol	6 botol	-	-	6 botol	6 botol	0	-	-	5 botol	5 botol	0	-	-
85	igestam Cream	18000	10 tube	6 tube	4 tube	-	-	4 tube	4 tube	0	-	-	10 tube	7 tube	3 tube	-	-

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga



DATA OBAT PATEN 2021

86	Handi quor	16000	20 strip	4 strip	16 strip	-	-	16 strip	7 strip	9 strip	-	-	9 strip	5 strip	4 strip	-	-		
87	Prima	12000	20 strip	2 strip	18 strip	-	-	18 strip	8 strip	10 strip	-	-	10 strip	10 strip	0	-	-		
88	Preng	10000	20 strip	2 strip	18 strip	-	-	18 strip	6 strip	12 strip	6 strip	60000	6 strip	5 strip	1 strip	-	-		
89	Sidam	4000	20 strip	8 strip	12 strip	-	-	12 strip	6 strip	6 strip	-	-	26 strip	10 strip	16 strip	6 strip	24000		
90	Sistolep	28000	10 botol	4 botol	6 botol	-	-	6 botol	3 botol	3 botol	-	-	8 botol	5 botol	3 botol	-	-		
91	Shine	11000	20 strip	20 strip	0	-	-	40 strip	23 strip	17 strip	-	-	37 strip	25 strip	12 strip	-	-		
92	Sasnal	10000	20 strip	13 strip	7 strip	-	-	27 strip	12 strip	15 strip	-	-	15 strip	14 strip	1 strip	-	-		
93	Seratal suspensi 500 mg/5 ml 100 ml	20000	40 botol	40 botol	0	-	-	60 botol	42 botol	18 botol	-	-	58 botol	45 botol	13 botol	-	-		
94	Sepetra	9000	20 strip	8 strip	12 strip	-	-	12 strip	10 strip	2 strip	-	-	22 strip	9 strip	13 strip	-	-		
95	Serid Otic Sol	100000	10 botol	2 botol	8 botol	-	-	8 botol	3 botol	5 botol	-	-	5 botol	1 botol	4 botol	-	-		
96	Sera F	6000	20 strip	7 strip	13 strip	-	-	13 strip	8 strip	5 strip	-	-	25 strip	7 strip	18 strip	5 strip	30000		
97	Teosol	3000	60 strip	42 strip	18 strip	-	-	58 strip	44 strip	14 strip	-	-	54 strip	45 strip	9 strip	-	-		
98	Tifan Forte	4000	20 strip	4 strip	16 strip	-	-	16 strip	10 strip	6 strip	-	-	26 strip	5 strip	21 strip	6 strip	24000		
99	Tandiol 28 Mg	24000	20 strip	5 strip	15 strip	-	-	15 strip	7 strip	8 strip	-	-	8 strip	3 strip	5 strip	-	-		
100	Tandiolan 80 Mg	38000	20 strip	5 strip	15 strip	-	-	15 strip	6 strip	9 strip	-	-	9 strip	7 strip	2 strip	-	-		
101	Tenwin Inhaler	140000	30 botol	23 botol	7 botol	-	-	27 botol	25 botol	2 botol	-	-	42 botol	26 botol	16 botol	4 botol	560000		
102	Vanperum	4000	20 strip	5 strip	15 strip	-	-	15 strip	9 strip	6 strip	-	-	6 strip	6 strip	0	-	-		
103	Vitain Cream	75000	5 tube	4 tube	1 tube	-	-	6 tube	5 tube	1 tube	-	-	6 tube	4 tube	2 tube	-	-		
104	Vongor 2,5 Mg	73000	20 strip	3 strip	17 strip	-	-	17 strip	4 strip	13 strip	-	-	13 strip	5 strip	8 strip	-	-		
105	Ventidex	5000	20 strip	9 strip	11 strip	-	-	11 strip	11 strip	0	-	-	20 strip	8 strip	12 strip	-	-		
106	Ventem Plus	4000	20 strip	6 strip	14 strip	-	-	14 strip	9 strip	5 strip	-	-	25 strip	8 strip	17 strip	-	-		
107	Viane	190000	10 kotak	8 kotak	12 kotak	-	-	12 kotak	10 kotak	2 kotak	-	-	22 kotak	9 kotak	13 kotak	-	-		
108	Vivoltar 50 Mg	5000	60 strip	43 strip	17 strip	-	-	57 strip	41 strip	16 strip	-	-	56 strip	45 strip	11 strip	-	-		
109	Vitamamine 50 Mg	25000	20 strip	20 strip	0	-	-	40 strip	22 strip	18 strip	-	-	38 strip	19 strip	19 strip	-	-		
110	Vitansi Forte 125 Mg 60 MI	70000	15 botol	1 botol	14 botol	-	-	14 botol	3 botol	11 botol	-	-	11 botol	2 botol	9 botol	-	-		
111	Vitadexta	3000	27 strip	3 strip	24 strip	-	-	24 strip	8 strip	16 strip	-	-	16 strip	4 strip	12 strip	-	-		
112	Vitaven 400 Mg	4000	29 strip	3 strip	26 strip	-	-	26 strip	5 strip	21 strip	-	-	21 strip	5 strip	19 strip	-	-		
113	Vitalax 50 Mg	10000	31 strip	2 strip	29 strip	-	-	29 strip	7 strip	22 strip	-	-	22 strip	4 strip	18 strip	-	-		
Total Kerugian							6561000						3031500						1041500

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga

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 State Islamic University of Sultan Syarif Kasim Riau

DATA OBAT PATEN 2021

No	Nama Obat	Harga Jual	Bulan April					Bulan Mei					Bulan Juni				
			Ter tersedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter tersedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter tersedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian
1	Lele	27000	24 strip	13 strip	11 strip	-	-	11 strip	9 strip	2 strip	-	-	22 strip	10 strip	12 strip	-	-
2	40 Mg	10000	21 strip	5 strip	16 strip	-	-	16 strip	7 strip	9 strip	-	-	9 strip	4 strip	5 strip	-	-
3	blet	7000	38 strip	20 strip	18 strip	-	-	18 strip	15 strip	3 strip	-	-	23 strip	21 strip	2 strip	-	-
4	ax	3000	22 strip	12 strip	10 strip	-	-	10 strip	10 strip	0	-	-	20 strip	15 strip	5 strip	-	-
5	(Telinga)	60000	7 botol	6 botol	1 botol	-	-	6 botol	4 botol	2 botol	-	-	7 botol	5 botol	2 botol	-	-
6	Tetes Mata	21000	8 botol	5 botol	3 botol	-	-	8 botol	6 botol	2 botol	-	-	7 botol	3 botol	4 botol	-	-
7	100 Mg	10000	52 strip	42 strip	10 strip	-	-	50 strip	44 strip	6 strip	-	-	66 strip	50 strip	16 strip	-	-
8	300 Mg	15000	17 strip	12 strip	5 strip	-	-	25 strip	9 strip	16 strip	-	-	16 strip	8 strip	8 strip	-	-
9	Baxtam	14000	24 strip	13 strip	11 strip	-	-	31 strip	16 strip	15 strip	-	-	15 strip	14 strip	1 strip	-	-
10	in Oint	105000	2 tube	1 tube	1 tube	-	-	6 tube	3 tube	3 tube	-	-	3 tube	2 tube	1 tube	-	-
11	ernazin Cream	90000	5 tube	5 tube	0	-	-	5 tube	3 tube	2 tube	-	-	2 tube	2 tube	0	-	-
12	escogan Tablet	5000	17 strip	11 strip	6 strip	-	-	6 strip	5 strip	1 strip	-	-	6 tube	6 strip	0	-	-
13	April 50 Mg	5000	12 strip	7 strip	5 strip	-	-	25 strip	6 strip	19 strip	-	-	19 strip	9 strip	10 strip	10 strip	50000
14	erini	55000	6 strip	3 strip	3 strip	-	-	23 strip	8 strip	15 strip	-	-	15 strip	3 strip	12 strip	-	-
15	Danasone	3000	25 strip	19 strip	6 strip	-	-	26 strip	22 strip	4 strip	-	-	24 strip	21 strip	3 strip	-	-
16	Debb Cream 40	65000	5 tube	3 tube	2 tube	-	-	7 tube	4 tube	3 tube	-	-	3 tube	3 tube	0	-	-
17	ene Sirup	226000	4 botol	2 botol	2 botol	-	-	7 botol	3 botol	4 botol	-	-	4 botol	1 botol	3 botol	-	-
18	brizol	30000	29 strip	10 strip	19 strip	-	-	19 strip	13 strip	6 strip	-	-	26 strip	8 strip	18 strip	-	-
19	Hamido 200 Mg	7000	23 strip	5 strip	18 strip	-	-	18 strip	7 strip	11 strip	-	-	11 strip	4 strip	7 strip	-	-
20	Grafamic	6000	14 strip	9 strip	5 strip	-	-	25 strip	12 strip	13 strip	-	-	13 strip	8 strip	5 strip	-	-
21	Hufadine	10000	14 strip	8 strip	6 strip	-	-	26 strip	12 strip	14 strip	-	-	14 strip	5 strip	9 strip	6 strip	60000
22	Imodium	120000	8 strip	7 strip	1 strip	-	-	21 strip	2 strip	19 strip	-	-	19 strip	1 strip	18 strip	-	-
23	Kardistatin Drops	65000	7 botol	6 botol	1 botol	-	-	11 botol	10 botol	1 botol	-	-	11 botol	8 botol	3 botol	-	-
24	ipitor 10 Mg	290000	8 strip	1 strip	7 strip	-	-	7 strip	4 strip	3 strip	-	-	23 strip	5 strip	18 strip	-	-
25	Lodia 2 Mg	20000	51 strip	35 strip	16 strip	-	-	36 strip	28 strip	8 strip	-	-	48 strip	30 strip	18 strip	-	-
26	istigo 6 Mg	20000	30 strip	30 strip	0	-	-	40 strip	31 strip	9 strip	-	-	29 strip	29 strip	0	-	-
27	Inpsa Sirup 100	95000	12 botol	9 botol	3 botol	-	-	13 botol	10 botol	3 botol	-	-	13 botol	11 botol	2 botol	-	-

* Merah = Pemesanan Pertama
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DATA OBAT PATEN 2021

28	Clamoxon 3 Mg	80000	5 strip	4 strip	1 strip	-	-	21 strip	3 strip	18 strip	-	-	18 strip	5 strip	13 strip	-	-
29	Clamoxon 15 mg	40000	11 botol	7 botol	4 botol	-	-	14 botol	8 botol	6 botol	-	-	6 botol	6 botol	0	-	-
30	Clamoxon 3 Mg	50000	4 strip	4 strip	0	-	-	25 strip	5 strip	20 strip	-	-	20 strip	6 strip	14 strip	-	-
31	Clamoxon 3 Mg	12000	60 strip	48 strip	12 strip	-	-	72 strip	60 strip	12 strip	-	-	72 strip	55 strip	17 strip	-	-
32	Clamoxon 3 Mg	10000	33 strip	22 strip	11 strip	-	-	31 strip	22 strip	9 strip	-	-	29 strip	23 strip	6 strip	-	-
33	Clamoxon 15 Mg	13000	21 strip	11 strip	10 strip	-	-	30 strip	13 strip	17 strip	-	-	17 strip	9 strip	8 strip	-	-
34	Clamoxon 3 Mg	33000	5 botol	4 botol	1 botol	-	-	6 botol	2 botol	4 botol	-	-	4 botol	3 botol	1 botol	-	-
35	Clamoxon 3 Mg	7000	22 strip	7 strip	15 strip	5 strip	35000	10 strip	10 strip	0	-	-	20 strip	13 strip	7 strip	-	-
36	Clamoxon 15 Mg/5mg	82000	5 botol	4 botol	1 botol	-	-	11 botol	8 botol	3 botol	-	-	8 botol	5 botol	3 botol	-	-
37	Mazolal (Ketoconazole) 200 mg	4000	22 strip	8 strip	14 strip	-	-	14 strip	13 strip	1 strip	-	-	21 strip	14 strip	7 strip	-	-
38	Myonal	110000	25 strip	4 strip	21 strip	-	-	21 strip	3 strip	18 strip	-	-	18 strip	6 strip	12 strip	5 strip	55000
39	Neuralgin Powder 5gr	25000	7 botol	7 botol	0	-	-	10 botol	6 botol	4 botol	-	-	9 botol	8 botol	1 botol	-	-
40	Neuralgin	10000	34 strip	20 strip	14 strip	-	-	14 strip	5 strip	9 strip	-	-	29 strip	4 strip	25 strip	-	-
41	Neuralgin 500 Mg	3000	19 strip	8 strip	11 strip	-	-	11 strip	3 strip	8 strip	-	-	8 strip	6 strip	2 strip	-	-
42	Neuralgin 40 Mg	200000	19 strip	6 strip	13 strip	-	-	13 strip	7 strip	6 strip	-	-	6 strip	5 strip	1 strip	-	-
43	Orvom	3000	24 strip	6 strip	18 strip	7 strip	21000	11 strip	8 strip	3 strip	-	-	23 strip	6 strip	17 strip	-	-
44	Orvomaxim	1500	32 strip	20 strip	12 strip	-	-	32 strip	22 strip	10 strip	-	-	30 strip	19 strip	11 strip	-	-
45	Orvomaxim 400 Mg	15000	11 strip	5 strip	6 strip	-	-	26 strip	10 strip	16 strip	-	-	16 strip	8 strip	8 strip	-	-
46	Orvomaxim 25 Mg	4000	24 strip	13 strip	11 strip	-	-	31 strip	12 strip	19 strip	9 strip	36000	30 strip	15 strip	15 strip	-	-
47	Orvomaxim 25 Mg	4000	24 strip	12 strip	12 strip	-	-	32 strip	15 strip	17 strip	-	-	17 strip	13 strip	4 strip	4 strip	16000
48	Orvomaxim 25 Mg	16000	25 strip	20 strip	5 strip	-	-	45 strip	26 strip	19 strip	-	-	39 strip	27 strip	12 strip	-	-
49	Orvomaxim 500 Mg	5000	28 strip	18 strip	10 strip	-	-	30 strip	16 strip	14 strip	-	-	34 strip	20 strip	14 strip	-	-
50	Cocovance 500 Mg/5Mg	8000	29 strip	13 strip	16 strip	7 strip	56000	11 strip	10 strip	1 strip	-	-	21 strip	10 strip	11 strip	-	-
51	Inflason	4000	29 strip	17 strip	12 strip	-	-	32 strip	19 strip	13 strip	-	-	33 strip	20 strip	13 strip	-	-
52	Intradoxin 100 Mg	40000	16 strip	1 strip	15 strip	-	-	15 strip	5 strip	10 strip	-	-	10 strip	4 strip	6 strip	-	-
53	Kalbethasone 0,5 Mg	2000	9 strip	3 strip	6 strip	-	-	6 strip	3 strip	3 strip	-	-	3 strip	2 strip	1 strip	-	-
54	Katitra 500 Mg	8000	9 strip	3 strip	6 strip	-	-	6 strip	5 strip	1 strip	-	-	21 strip	6 strip	15 strip	-	-
55	Karfeson Cream	10000	7 tube	6 tube	1 tube	-	-	11 tube	10 tube	1 tube	-	-	11 tube	8 tube	3 tube	-	-
56	Klorofema Lotion 30 ML	100000	6 botol	2 botol	4 botol	-	-	4 botol	3 botol	1 botol	-	-	6 botol	2 botol	4 botol	-	-

* Merah = Pemesanan Pertama
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DATA OBAT PATEN 2021

57	50 Mg	40000	32 strip	14 strip	18 strip	-	-	18 strip	13 strip	5 strip	5 strip	200000	20 strip	15 strip	5 strip	-	-
58	rup	48000	18 botol	3 botol	15 botol	-	-	15 botol	1 botol	14 botol	-	-	14 botol	2 botol	12 botol	-	-
59	Levamisole	15000	24 strip	14 strip	10 strip	-	-	30 strip	13 strip	17 strip	10 strip	150000	27 strip	15 strip	12 strip	-	-
60	Maax 1% cream	45000	9 tube	6 tube	3 tube	-	-	3 tube	3 tube	0	-	-	5 tube	5 tube	0	-	-
61	Moraxim	10000	7 strip	2 strip	5 strip	-	-	5 strip	4 strip	1 strip	-	-	21 strip	3 strip	18 strip	-	-
62	Moraxim	8000	35 strip	28 strip	7 strip	-	-	47 strip	31 strip	16 strip	-	-	36 strip	28 strip	12 strip	-	-
63	Moraxim	74000	4 botol	2 botol	2 botol	-	-	7 botol	4 botol	3 botol	-	-	8 botol	5 botol	3 botol	-	-
64	Ornidid 10 Mg	20000	8 strip	4 strip	4 strip	-	-	24 strip	5 strip	19 strip	-	-	19 strip	3 strip	16 strip	-	-
65	Omegestic	5000	22 strip	16 strip	6 strip	-	-	26 strip	10 strip	16 strip	-	-	16 strip	12 strip	16 strip	10 strip	50000
66	Onestan	5000	24 strip	4 strip	20 strip	-	-	20 strip	10 strip	10 strip	-	-	10 strip	1 strip	9 strip	-	-
67	Ornicobal	3000	6 strip	5 strip	1 strip	-	-	21 strip	10 strip	11 strip	-	-	11 strip	3 strip	8 strip	-	-
68	Ornicobal	20000	6 supos	5 supos	1 supos	-	-	11 supos	9 supos	2 supos	-	-	7 supos	7 supos	0	-	-
69	Ornicobal	260000	8 strip	7 strip	1 strip	-	-	21 strip	10 strip	11 strip	1 strip	260000	10 strip	4 strip	6 strip	-	-
70	Phenyloin 100 Mg Capsule	70000	7 botol	3 botol	4 botol	-	-	9 botol	6 botol	3 botol	-	-	8 botol	4 botol	4 botol	-	-
71	Panotab	4000	12 strip	10 strip	2 strip	-	-	22 strip	8 strip	14 strip	-	-	14 strip	6 strip	8 strip	-	-
72	Panotab Plus	3000	55 strip	39 strip	16 strip	-	-	56 strip	40 strip	16 strip	-	-	56 strip	38 strip	18 strip	-	-
73	Panotab 40 Mg	6500	22 strip	8 strip	14 strip	-	-	14 strip	4 strip	10 strip	-	-	10 strip	9 strip	1 strip	-	-
74	Pantalex Tablet	6000	26 strip	7 strip	19 strip	-	-	19 strip	4 strip	15 strip	8 strip	48000	27 strip	9 strip	18 strip	-	-
75	Pantalex 75 Mg	65000	21 strip	5 strip	16 strip	-	-	16 strip	8 strip	8 strip	-	-	28 strip	10 strip	18 strip	-	-
76	Pantalex	4000	40 strip	39 strip	1 strip	-	-	60 strip	49 strip	11 strip	-	-	51 strip	50 strip	1 strip	-	-
77	Pantalex	3000	21 strip	10 strip	11 strip	-	-	11 strip	5 strip	6 strip	-	-	6 strip	4 strip	2 strip	-	-
78	Raniver 75mg/5 ml Sirup 60 ml	70000	4 botol	2 botol	2 botol	-	-	7 botol	6 botol	1 botol	-	-	6 botol	3 botol	3 botol	-	-
79	Quantidex	5000	18 strip	8 strip	10 strip	-	-	10 strip	4 strip	6 strip	-	-	26 strip	8 strip	18 strip	-	-
80	Rephyl Sr 300 mg	15000	24 strip	10 strip	14 strip	-	-	14 strip	13 strip	1 strip	-	-	21 strip	12 strip	9 strip	-	-
81	Rhemafar 4 Mg	5000	40 strip	25 strip	15 strip	-	-	35 strip	24 strip	11 strip	-	-	37 strip	27 strip	10 strip	-	-
82	Rhinofed	45000	11 strip	10 strip	1 strip	-	-	21 strip	8 strip	13 strip	-	-	13 strip	9 strip	4 strip	-	-
83	Conferton 30 mg	6000	24 strip	15 strip	9 strip	-	-	29 strip	10 strip	19 strip	-	-	19 strip	12 strip	7 strip	-	-
84	Kyvel Sirup	60000	10 botol	7 botol	3 botol	-	-	8 botol	4 botol	4 botol	-	-	9 botol	9 botol	0	-	-
85	Stestam Cream	18000	8 tube	5 tube	3 tube	-	-	8 tube	6 tube	2 tube	-	-	12 tube	9 tube	3 tube	-	-

* Merah = Pemesanan Pertama
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 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

86	Hidroquor	16000	24 strip	10 strip	14 strip	8 strip	128000	6 strip	5 strip	1 strip	-	-	21 strip	4 strip	7 strip	-	-	
87	Saliprima	12000	24 strip	7 strip	17 strip	-	-	17 strip	6 strip	11 strip	-	-	11 strip	5 strip	6 strip	-	-	
88	Soloreg	10000	21 strip	7 strip	14 strip	-	-	14 strip	5 strip	9 strip	-	-	9 strip	3 strip	6 strip	-	-	
89	Solobam	4000	10 strip	8 strip	2 strip	-	-	22 strip	12 strip	10 strip	-	-	10 strip	8 strip	2 strip	-	-	
90	Solobaplet	28000	8 botol	4 botol	4 botol	-	-	9 botol	7 botol	2 botol	-	-	7 botol	5 botol	2 botol	-	-	
91	Solobec	11000	32 strip	24 strip	8 strip	-	-	28 strip	22 strip	6 strip	-	-	26 strip	26 strip	0	-	-	
92	Solobanal	10000	21 strip	13 strip	8 strip	-	-	28 strip	16 strip	12 strip	-	-	32 strip	17 strip	15 strip	-	-	
93	Solobusensi 500 mg/5 ml 100 ml	20000	53 botol	42 botol	11 botol	-	-	51 botol	40 botol	11 botol	-	-	51 botol	43 botol	8 botol	-	-	
94	Supertetra	9000	13 strip	7 strip	6 strip	-	-	26 strip	9 strip	13 strip	-	-	13 strip	8 strip	5 strip	-	-	
95	Tetrival Otic Sol	100000	4 botol	1 botol	3 botol	3 botol	300000	5 botol	3 botol	2 botol	-	-	7 botol	6 botol	1 botol	-	-	
96	Tetra F	6000	13 strip	9 strip	4 strip	-	-	24 strip	6 strip	18 strip	-	-	18 strip	10 strip	8 strip	-	-	
97	Tetosal	3000	49 strip	39 strip	10 strip	-	-	50 strip	40 strip	10 strip	-	-	50 strip	41 strip	9 strip	-	-	
98	Tetofort Forte	4000	15 strip	6 strip	9 strip	-	-	9 strip	3 strip	6 strip	-	-	26 strip	10 strip	16 strip	-	-	
99	Tetamol 28 Mg	24000	25 strip	8 strip	17 strip	-	-	17 strip	9 strip	8 strip	-	-	28 strip	12 strip	16 strip	-	-	
100	Tetamol 80 Mg	38000	22 strip	5 strip	17 strip	-	-	17 strip	10 strip	7 strip	-	-	27 strip	8 strip	19 strip	8 strip	304000	
101	Tetamin Inhaler	140000	32 botol	28 botol	4 botol	-	-	24 botol	20 botol	4 botol	-	-	24 botol	22 botol	2 botol	-	-	
102	Tetaperum	4000	20 strip	5 strip	15 strip	-	-	15 strip	10 strip	5 strip	-	-	5 strip	3 strip	2 strip	-	-	
103	Tetamin Cream	75000	7 tube	6 tube	1 tube	-	-	11 tube	8 tube	3 tube	-	-	8 tube	5 tube	3 tube	-	-	
104	Tetonger 2,5 Mg	73000	8 strip	7 strip	1 strip	-	-	21 strip	2 strip	19 strip	-	-	19 strip	5 strip	14 strip	-	-	
105	Tetidex	5000	12 strip	10 strip	2 strip	-	-	22 strip	9 strip	13 strip	-	-	13 strip	11 strip	2 strip	-	-	
106	Tetexem Plus	4000	17 strip	12 strip	5 strip	-	-	25 strip	8 strip	17 strip	-	-	17 strip	10 strip	7 strip	-	-	
107	Tetiane	190000	13 kotak	7 kotak	6 kotak	-	-	16 kotak	10 kotak	6 kotak	-	-	16 kotak	8 kotak	8 kotak	-	-	
108	Tetivoltar 50 Mg	5000	51 strip	40 strip	11 strip	-	-	51 strip	42 strip	9 strip	-	-	49 strip	39 strip	10 strip	-	-	
109	Tetnamine 50 Mg	25000	39 strip	25 strip	14 strip	-	-	34 strip	23 strip	11 strip	-	-	31 strip	20 strip	11 strip	-	-	
110	Tetansi Forte 125 Mg 60 MI	70000	9 botol	4 botol	5 botol	5 botol	350000	10 botol	6 botol	4 botol	-	-	4 botol	2 botol	2 botol	-	-	
111	Tetadexta	3000	12 strip	4 strip	8 strip	-	-	8 strip	5 strip	3 strip	3 strip	9000	21 strip	6 strip	15 strip	-	-	
112	Tetaven 400 Mg	4000	19 strip	9 strip	10 strip	-	-	10 strip	4 strip	6 strip	6 strip	24000	20 strip	6 strip	14 strip	-	-	
113	Tetalex 50 Mg	10000	18 strip	3 strip	15 strip	-	-	15 strip	7 strip	15 strip	-	-	15 strip	9 strip	6 strip	-	-	
Total Kerugian							890000						727000	1030000				

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

No	Nama Obat	Harga Jual	Bulan Juli					Bulan Agustus					Bulan September				
			Ter sedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter sedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter sedia	Pen Jualan	Obat Sisa	Kadalu warsa	Ke rugian
1	Lele	27000	32 strip	15 strip	17 strip	-	-	17 strip	12 strip	5 strip	-	-	25 strip	16 strip	9 strip	-	-
2	450 Mg	10000	25 strip	6 strip	19 strip	-	-	19 strip	6 strip	13 strip	-	-	13 strip	10 strip	3 strip	-	-
3	blet	7000	22 strip	17 strip	5 strip	-	-	25 strip	15 strip	10 strip	-	-	30 strip	16 strip	14 strip	-	-
4	Amox	3000	25 strip	18 strip	7 strip	-	-	27 strip	13 strip	14 strip	-	-	39 strip	15 strip	24 strip	-	-
5	(Petel Telinga)	60000	7 botol	7 botol	0	-	-	5 botol	3 botol	2 botol	-	-	12 strip	10 botol	2 botol	-	-
6	Tetes Mata	21000	9 botol	9 botol	0	-	-	10 botol	6 botol	4 botol	4 botol	84000	5 botol	2 botol	3 botol	-	-
7	100 Mg	10000	56 strip	48 strip	8 strip	-	-	48 strip	39 strip	9 strip	-	-	49 strip	40 strip	9 strip	-	-
8	300 Mg	15000	28 strip	10 strip	18 strip	-	-	18 strip	13 strip	5 strip	-	-	5 strip	5 strip	0	-	-
9	Budaxtam	14000	21 strip	10 strip	11 strip	-	-	31 strip	12 strip	19 strip	-	-	19 strip	14 strip	5 strip	-	-
10	Bersamol N Oint	105000	6 tube	5 tube	1 tube	-	-	6 tube	4 tube	2 tube	-	-	2 tube	1 tube	1 tube	-	-
11	Ermazin Cream	90000	5 tube	5 tube	0	-	-	5 tube	4 tube	1 tube	-	-	6 tube	3 tube	3 tube	-	-
12	Boscogan Tablet	5000	20 strip	7 strip	13 strip	-	-	13 strip	8 strip	5 strip	-	-	5 strip	5 strip	0	-	-
13	Capto April 50 Mg	5000	20 strip	8 strip	12 strip	-	-	12 strip	5 strip	7 strip	-	-	7 strip	4 strip	3 strip	-	-
14	erini	55000	12 strip	4 strip	8 strip	-	-	8 strip	5 strip	3 strip	-	-	23 strip	6 strip	17 strip	-	-
15	Danasone	3000	23 strip	20 strip	3 strip	-	-	23 strip	18 strip	5 strip	-	-	25 strip	16 strip	9 strip	-	-
16	Decebu Cream 40	65000	5 tube	1 tube	4 tube	-	-	4 tube	2 tube	2 tube	-	-	2 tube	2 tube	0	-	-
17	Depa Bene Sirup	226000	3 botol	1 botol	2 botol	-	-	7 botol	3 botol	4 botol	-	-	9 botol	5 botol	4 botol	-	-
18	Dobrizol	30000	18 strip	15 strip	3 strip	-	-	23 strip	11 strip	12 strip	-	-	32 strip	14 strip	18 strip	-	-
19	Harnico 200 Mg	7000	7 strip	2 strip	5 strip	-	-	5 strip	5 strip	0	-	-	20 strip	4 strip	16 strip	-	-
20	Grafamic	6000	25 strip	6 strip	19 strip	-	-	19 strip	11 strip	8 strip	-	-	28 strip	15 strip	13 strip	-	-
21	Hufadine	10000	23 strip	11 strip	12 strip	-	-	32 strip	16 strip	16 strip	-	-	36 strip	20 strip	16 strip	-	-
22	Imodium	120000	18 strip	3 strip	15 strip	-	-	15 strip	6 strip	9 strip	-	-	9 strip	9 strip	0	-	-
23	Kardistatin Drops	65000	8 botol	4 botol	4 botol	-	-	9 botol	6 botol	3 botol	-	-	3 botol	3 botol	0	-	-
24	ipitor 10 Mg	290000	18 strip	6 strip	12 strip	-	-	12 strip	4 strip	8 strip	-	-	8 strip	3 strip	5 strip	-	-
25	Lodia 2 Mg	20000	38 strip	29 strip	9 strip	-	-	49 strip	35 strip	14 strip	-	-	34 strip	33 strip	1 strip	-	-
26	histigo 6 Mg	20000	40 strip	30 strip	10 strip	-	-	30 strip	29 strip	1 strip	-	-	41 strip	30 strip	11 strip	-	-
27	Inpsa Sirup 100	95000	7 botol	5 botol	2 botol	2 botol	190000	10 botol	8 botol	2 botol	-	-	7 botol	7 botol	0	-	-

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

28	Clamoxon 3 Mg	80000	13 strip	6 strip	7 strip	-	-	7 strip	4 strip	3 strip	-	-	3 strip	3 strip	0	-	-
29	Clamoxon 15 mg	40000	10 botol	8 botol	2 botol	-	-	12 strip	10 botol	2 botol	-	-	12 botol	9 botol	3 botol	-	-
30	Clamoxon 3 Mg	50000	14 strip	8 strip	6 strip	-	-	6 strip	4 strip	2 strip	-	-	22 strip	9 strip	13 strip	-	-
31	Clamoxon 3 Mg	12000	57 strip	53 strip	4 strip	-	-	64 strip	54 strip	10 strip	-	-	50 strip	50 strip	0	-	-
32	Clamoxon 3 Mg	10000	26 strip	20 strip	6 strip	-	-	26 strip	19 strip	7 strip	-	-	27 strip	21 strip	6 strip	-	-
33	Clamoxon 15 mg	13000	28 strip	12 strip	16 strip	-	-	16 strip	14 strip	2 strip	-	-	22 strip	10 strip	12 strip	-	-
34	Clamoxon 3 Mg	33000	11 botol	7 botol	4 botol	3 botol	99000	6 botol	6 botol	0	-	-	5 botol	4 botol	1 botol	-	-
35	Clamoxon 3 Mg	7000	27 strip	9 strip	18 strip	-	-	18 strip	7 strip	11 strip	-	-	11 strip	9 strip	2 strip	-	-
36	Clamoxon 15 Mg/5mg	82000	8 botol	8 botol	0	-	-	5 botol	4 botol	1 botol	-	-	6 botol	2 botol	4 botol	-	-
37	Mazolal (Ketoconazole) 200 mg	4000	27 strip	12 strip	15 strip	-	-	15 strip	9 strip	6 strip	-	-	26 strip	10 strip	16 strip	8 strip	32000
38	Myonal	110000	7 strip	5 strip	2 strip	-	-	21 strip	3 strip	18 strip	-	-	18 strip	4 strip	14 strip	-	-
39	Lebceftin Powder 5gr	25000	11 botol	10 botol	1 botol	-	-	16 botol	12 botol	4 botol	-	-	9 botol	9 botol	0	-	-
40	Neuralgin	10000	25 strip	4 strip	21 strip	-	-	21 strip	3 strip	18 strip	-	-	18 strip	2 strip	16 strip	-	-
41	Nexiam 500 Mg	3000	22 strip	7 strip	15 strip	-	-	15 strip	5 strip	10 strip	-	-	10 strip	8 strip	2 strip	-	-
42	Nexiam 40 Mg	200000	21 strip	6 strip	15 strip	-	-	15 strip	8 strip	7 strip	-	-	7 strip	7 strip	0	-	-
43	Orvom	3000	17 strip	6 strip	11 strip	-	-	11 strip	8 strip	3 strip	-	-	23 strip	6 strip	17 strip	-	-
44	Novaxicam	1500	31 strip	19 strip	11 strip	-	-	31 strip	20 strip	11 strip	-	-	31 strip	18 strip	13 strip	-	-
45	Fenistin 400 Mg	15000	28 strip	9 strip	19 strip	-	-	19 strip	7 strip	12 strip	-	-	12 strip	9 strip	3 strip	-	-
46	Parizol	4000	15 strip	15 strip	0	-	-	20 strip	14 strip	6 strip	-	-	26 strip	12 strip	14 strip	-	-
47	Fenistat 25 Mg	4000	20 strip	12 strip	8 strip	-	-	28 strip	13 strip	15 strip	-	-	15 strip	12 strip	3 strip	-	-
48	Fenistat Troces	16000	32 strip	26 strip	6 strip	-	-	26 strip	25 strip	1 strip	-	-	21 strip	20 strip	1 strip	-	-
49	Clonipatic 500 Mg	5000	34 strip	19 strip	15 strip	-	-	35 strip	19 strip	16 strip	-	-	16 strip	16 strip	0	-	-
50	Cocovance 500 Mg/5Mg	8000	11 strip	9 strip	2 strip	-	-	22 strip	9 strip	13 strip	-	-	13 strip	10 strip	3 strip	-	-
51	Inflason	4000	33 strip	18 strip	15 strip	-	-	35 strip	17 strip	18 strip	-	-	38 strip	19 strip	19 strip	-	-
52	Intradoxin 100 Mg	40000	6 strip	6 strip	0	-	-	40 strip	2 strip	38 strip	-	-	38 strip	3 strip	35 strip	-	-
53	Kalbethasone 0,5 Mg	2000	21 strip	3 strip	18 strip	-	-	18 strip	5 strip	13 strip	-	-	13 strip	3 strip	10 strip	-	-
54	Katitra 500 Mg	8000	15 strip	3 strip	12 strip	-	-	12 strip	6 strip	6 strip	-	-	6 strip	4 strip	2 strip	-	-
55	Karfeson Cream	10000	13 tube	10 tube	3 tube	-	-	8 tube	7 tube	1 tube	-	-	11 tube	7 tube	4 strip	-	-
56	Klorofema Lotion 30 ml	100000	4 botol	1 botol	3 botol	3 botol	300000	5 botol	3 botol	2 botol	-	-	6 botol	4 botol	2 botol	-	-

* Merah = Pemesanan Pertama
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 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

57	50 Mg	40000	25 strip	13 strip	12 strip	-	-	12 strip	12 strip	0	-	-	20 strip	13 strip	7 strip	-	-
58	10 Mg	48000	12 botol	3 botol	9 botol	-	-	9 botol	2 botol	7 botol	-	-	7 botol	3 botol	4 botol	-	-
59	100 mg	15000	32 strip	15 strip	17 strip	-	-	17 strip	10 strip	7 strip	-	-	27 strip	17 strip	10 strip	-	-
60	100 mg	45000	5 tube	2 tube	3 tube	-	-	8 tube	4 tube	4 tube	4 tube	180000	5 tube	3 tube	2 tube	-	-
61	100 mg	10000	18 strip	5 strip	13 strip	-	-	13 strip	7 strip	6 strip	-	-	26 strip	9 strip	17 strip	-	-
62	100 mg	8000	32 strip	28 strip	4 strip	-	-	44 strip	27 strip	17 strip	-	-	37 strip	30 strip	7 strip	-	-
63	100 mg	74000	3 botol	3 botol	0	-	-	5 botol	1 botol	4 botol	-	-	4 botol	2 botol	2 botol	-	-
64	100 mg	20000	16 strip	6 strip	10 strip	-	-	10 strip	4 strip	6 strip	-	-	26 strip	7 strip	19 strip	-	-
65	100 mg	5000	26 strip	11 strip	15 strip	-	-	15 strip	12 strip	3 strip	-	-	23 strip	13 strip	10 strip	-	-
66	100 mg	5000	9 strip	4 strip	5 strip	-	-	5 strip	5 strip	0	-	-	20 strip	3 strip	17 strip	-	-
67	100 mg	3000	8 strip	4 strip	4 strip	-	-	24 strip	6 strip	18 strip	-	-	18 strip	7 strip	11 strip	-	-
68	25 Mg Supos	20000	10 supos	10 supos	0	-	-	5 supos	4 supos	1 supos	-	-	6 supos	5 supos	1 supos	-	-
69	10 Mg	260000	6 strip	3 strip	3 strip	-	-	3 strip	2 strip	1 strip	-	-	21 strip	5 strip	16 strip	-	-
70	100 Mg Capsule	70000	9 botol	7 botol	2 botol	2 botol	140000	5 botol	3 botol	2 botol	-	-	12 botol	10 botol	2 botol	-	-
71	100 mg	4000	8 strip	8 strip	0	-	-	20 strip	10 strip	10 strip	-	-	10 strip	6 strip	4 strip	-	-
72	100 mg	3000	58 strip	40 strip	18 strip	-	-	48 strip	42 strip	6 strip	-	-	46 strip	40 strip	6 strip	-	-
73	40 Mg	6500	21 strip	10 strip	11 strip	-	-	11 strip	4 strip	7 strip	-	-	7 strip	3 strip	7 strip	7 strip	45500
74	100 mg	6000	18 strip	11 strip	7 strip	-	-	27 strip	8 strip	19 strip	-	-	19 strip	2 strip	17 strip	-	-
75	75 Mg	65000	18 strip	4 strip	14 strip	-	-	14 strip	6 strip	8 strip	8 strip	520000	20 strip	7 strip	13 strip	-	-
76	100 mg	4000	61 strip	48 strip	13 strip	-	-	53 strip	42 strip	11 strip	-	-	51 strip	50 strip	1 strip	-	-
77	100 mg	3000	22 strip	11 strip	11 strip	-	-	11 strip	6 strip	5 strip	-	-	5 strip	4 strip	1 strip	-	-
78	100 mg/5 ml Sirup	70000	8 botol	5 botol	3 botol	-	-	8 botol	7 botol	1 botol	-	-	6 botol	3 botol	3 botol	-	-
79	100 mg	5000	18 strip	6 strip	12 strip	-	-	12 strip	11 strip	1 strip	-	-	21 strip	6 strip	15 strip	-	-
80	300 mg	15000	29 strip	11 strip	18 strip	-	-	18 strip	14 strip	4 strip	-	-	24 strip	15 strip	9 strip	-	-
81	4 Mg	5000	30 strip	23 strip	7 strip	-	-	27 strip	22 strip	5 strip	-	-	25 strip	23 strip	2 strip	-	-
82	100 mg	45000	24 strip	10 strip	14 strip	-	-	14 strip	12 strip	2 strip	-	-	22 strip	9 strip	13 strip	-	-
83	30 mg	6000	27 strip	14 strip	13 strip	-	-	13 strip	12 strip	1 strip	-	-	21 strip	11 strip	10 strip	-	-
84	100 mg	60000	5 botol	4 botol	1 botol	-	-	6 botol	3 botol	3 botol	-	-	9 botol	6 botol	3 botol	-	-
85	100 mg	18000	13 tube	11 tube	2 tube	-	-	12 strip	8 tube	4 tube	-	-	9 tube	9 tube	0	-	-

* Merah = Pemesanan Pertama
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 *** Hijau = Pemesanan Ketiga



DATA OBAT PATEN 2021

86	Haiduquor	16000	7 strip	6 strip	1 strip	-	-	21 strip	7 strip	14 strip	-	-	14 strip	5 strip	9 strip	-	-	
87	Sadaprima	12000	6 strip	4 strip	2 strip	-	-	22 strip	3 strip	19 strip	-	-	19 strip	7 strip	12 strip	-	-	
88	Soloneg	10000	26 strip	8 strip	18 strip	-	-	18 strip	10 strip	8 strip	-	-	8 strip	4 strip	4 strip	-	-	
89	Soloneg	4000	22 strip	9 strip	13 strip	-	-	13 strip	10 strip	3 strip	-	-	23 strip	11 strip	12 strip	-	-	
90	Systol Kaplet	28000	7 botol	4 botol	3 botol	-	-	8 botol	6 botol	2 botol	-	-	12 botol	8 botol	4 botol	-	-	
91	Systol Hinc	11000	20 strip	20 strip	0	-	-	40 strip	30 strip	10 strip	-	-	30 strip	24 strip	6 strip	-	-	
92	Systol Hinc	10000	15 strip	13 strip	2 strip	-	-	22 strip	14 strip	8 strip	-	-	28 strip	15 strip	13 strip	-	-	
93	Systol Hinc	20000	48 botol	42 botol	6 botol	-	-	46 botol	39 botol	7 botol	-	-	37 botol	36 botol	1 botol	-	-	
94	Supertetra	9000	25 strip	9 strip	16 strip	-	-	16 strip	10 strip	6 strip	-	-	26 strip	12 strip	14 strip	-	-	
95	Supertetra	100000	6 botol	5 botol	1 botol	-	-	6 botol	3 botol	3 botol	-	-	3 botol	2 botol	1 botol	-	-	
96	Tera F	6000	28 strip	12 strip	16 strip	-	-	16 strip	5 strip	11 strip	-	-	11 strip	8 strip	3 strip	-	-	
97	Terasal	3000	49 strip	42 strip	7 strip	-	-	47 strip	38 strip	9 strip	-	-	49 strip	44 strip	5 strip	-	-	
98	Terasal Forte	4000	16 strip	8 strip	8 strip	-	-	8 strip	3 strip	5 strip	-	-	5 strip	5 strip	0	-	-	
99	Terasal Forte	24000	16 strip	8 strip	8 strip	-	-	8 strip	6 strip	2 strip	2 strip	48000	20 strip	10 strip	10 strip	-	-	
100	Terasal Forte	38000	11 strip	6 strip	5 strip	-	-	5 strip	5 strip	0	-	-	20 strip	8 strip	12 strip	-	-	
101	Terasal Forte	140000	42 strip	24 botol	18 botol	-	-	38 strip	20 botol	18 botol	-	-	28 botol	25 botol	3 botol	-	-	
102	Terasal Forte	4000	22 strip	8 strip	14 strip	-	-	14 strip	5 strip	9 strip	9 strip	36000	20 strip	7 strip	13 strip	-	-	
103	Terasal Forte	75000	8 tube	7 tube	1 tube	-	-	11 tube	10 tube	1 tube	-	-	6 tube	3 tube	3 tube	-	-	
104	Terasal Forte	73000	14 strip	3 strip	11 strip	-	-	11 strip	8 strip	3 strip	-	-	23 strip	7 strip	16 strip	-	-	
105	Terasal Forte	5000	22 strip	8 strip	14 strip	-	-	14 strip	11 strip	3 strip	-	-	23 strip	14 strip	9 strip	-	-	
106	Terasal Forte	4000	7 strip	6 strip	1 strip	-	-	21 strip	7 strip	14 strip	-	-	14 strip	12 strip	2 strip	-	-	
107	Terasal Forte	190000	8 kotak	6 kotak	2 kotak	-	-	12 strip	8 kotak	4 kotak	-	-	14 kotak	7 kotak	7 kotak	-	-	
108	Terasal Forte	5000	50 strip	44 strip	6 strip	-	-	46 strip	42 strip	4 strip	-	-	64 strip	46 strip	18 strip	-	-	
109	Terasal Forte	25000	31 strip	26 strip	5 strip	-	-	25 strip	21 strip	4 strip	-	-	24 strip	17 strip	7 strip	-	-	
110	Terasal Forte	70000	7 botol	5 botol	2 botol	-	-	2 botol	2 botol	0	-	-	5 botol	4 botol	1 botol	-	-	
111	Terasal Forte	3000	15 strip	3 strip	12 strip	-	-	12 strip	2 strip	10 strip	-	-	10 strip	6 strip	4 strip	-	-	
112	Terasal Forte	4000	14 strip	3 strip	11 strip	-	-	11 strip	2 strip	9 strip	-	-	9 strip	9 strip	0	-	-	
113	Terasal Forte	10000	6 strip	2 strip	4 strip	4 strip	40000	20 strip	6 strip	14 strip	-	-	14 strip	8 strip	6 strip	-	-	
Total Kerugian							769000						868000	77500				

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

No	Nama Obat	Harga Jual	Bulan Oktober					Bulan November					Bulan Desember				
			Ter tersedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter tersedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian	Ter tersedia	Pen jualan	Obat Sisa	Kadalu warsa	Ke rugian
1	Lele	27000	9 strip	5 strip	4 strip	-	-	44 strip	7 strip	37 strip	-	-	37 strip	4 strip	33 strip	-	-
2	40 Mg	10000	23 strip	4 strip	19 strip	-	-	19 strip	2 strip	17 strip	-	-	17 strip	5 strip	12 strip	-	-
3	blet	7000	34 strip	22 strip	12 strip	-	-	52 strip	20 strip	32 strip	-	-	32 strip	19 strip	13 strip	-	-
4	ax	3000	24 strip	10 strip	14 strip	-	-	14 strip	13 strip	1 strip	-	-	41 strip	9 strip	32 strip	-	-
5	(Telinga)	60000	12 botol	9 botol	3 botol	-	-	13 botol	7 botol	6 botol	-	-	16 botol	8 botol	8 botol	-	-
6	Tetes Mata	21000	8 botol	4 botol	4 botol	-	-	14 strip	3 botol	11 botol	-	-	11 botol	6 botol	11 botol	-	-
7	100 Mg	10000	49 strip	43 strip	6 strip	-	-	66 strip	46 strip	20 strip	-	-	60 strip	44 strip	16 strip	-	-
8	300 Mg	15000	40 strip	9 strip	31 strip	-	-	31 strip	10 strip	21 strip	-	-	21 strip	11 strip	10 strip	-	-
9	Baxtam	14000	25 strip	13 strip	12 strip	-	-	12 strip	10 strip	2 strip	-	-	42 strip	11 strip	31 strip	-	-
10	N Oint	105000	6 tube	2 tube	4 tube	-	-	4 tube	3 tube	1 tube	-	-	1 tube	1 tube	0	-	-
11	zamin Cream	90000	3 tube	3 tube	0	-	-	10 tube	5 tube	5 tube	-	-	5 tube	2 tube	3 tube	-	-
12	edan Tablet	5000	20 strip	6 strip	14 strip	-	-	14 strip	10 strip	4 strip	-	-	44 strip	8 strip	36 strip	-	-
13	ril 50 Mg	5000	28 strip	8 strip	20 strip	-	-	20 strip	12 strip	8 strip	-	-	48 strip	11 strip	37 strip	-	-
14	erini	55000	17 strip	10 strip	7 strip	-	-	7 strip	2 strip	5 strip	-	-	5 strip	4 strip	1 strip	-	-
15	Danason	3000	29 strip	21 strip	8 strip	-	-	48 strip	19 strip	29 strip	9 strip	27000	40 strip	22 strip	18 strip	-	-
16	Debb Cream 40	65000	5 tube	1 tube	4 tube	-	-	4 tube	2 tube	2 tube	-	-	2 tube	2 tube	0	-	-
17	ene Sirup	226000	4 botol	4 botol	0	-	-	10 botol	6 botol	4 botol	-	-	4 botol	3 botol	1 botol	-	-
18	brizol	30000	18 strip	17 strip	1 strip	-	-	41 strip	16 strip	25 strip	-	-	25 strip	15 strip	10 strip	-	-
19	o 200 Mg	7000	16 strip	3 strip	13 strip	-	-	13 strip	4 strip	9 strip	-	-	9 strip	2 strip	7 strip	-	-
20	afamic	6000	33 strip	17 strip	16 strip	-	-	46 strip	18 strip	28 strip	-	-	28 strip	16 strip	12 strip	-	-
21	Hufadine	10000	39 strip	19 strip	20 strip	-	-	20 strip	15 strip	5 strip	-	-	45 strip	9 strip	36 strip	-	-
22	Imodium	120000	20 strip	4 strip	16 strip	-	-	16 strip	3 strip	13 strip	-	-	13 strip	2 strip	11 strip	-	-
23	Kadistatin Drops	65000	5 botol	5 botol	0	-	-	10 botol	4 botol	6 botol	-	-	6 botol	6 botol	0	-	-
24	ipitor 10 Mg	290000	5 strip	2 strip	3 strip	-	-	43 strip	4 strip	39 strip	-	-	39 strip	3 strip	36 strip	-	-
25	Lodia 2 Mg	20000	41 strip	30 strip	11 strip	-	-	51 strip	32 strip	19 strip	-	-	39 strip	29 strip	10 strip	-	-
26	istigo 6 Mg	20000	31 strip	28 strip	3 strip	-	-	43 strip	30 strip	13 strip	-	-	33 strip	29 strip	4 strip	-	-
27	Inpsa Sirup 100	95000	10 botol	8 botol	2 botol	-	-	12 botol	7 botol	5 botol	-	-	15 botol	10 botol	5 botol	-	-

* Merah = Pemesanan Pertama
 ** Biru = Pemesanan Kedua
 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

28	Clamoxon 3 Mg	80000	20 strip	2 strip	18 strip	-	-	18 strip	4 strip	14 strip	-	-	14 strip	3 strip	11 strip	-	-
29	Clamoxon 15 mg	40000	13 botol	11 botol	2 botol	-	-	12 botol	8 botol	4 botol	-	-	14 botol	10 botol	4 botol	-	-
30	Clamoxon 3 Mg	50000	13 strip	10 strip	3 strip	-	-	3 strip	3 strip	0	-	-	40 strip	2 strip	38 strip	-	-
31	Clamoxon 3 Mg	12000	60 strip	56 strip	4 strip	-	-	64 strip	47 strip	17 strip	-	-	57 strip	49 strip	8 strip	-	-
32	Clamoxon 3 Mg	10000	26 strip	18 strip	8 strip	-	-	48 strip	20 strip	28 strip	-	-	28 strip	21 strip	7 strip	-	-
33	Clamoxon 15 Mg	13000	12 strip	9 strip	3 strip	-	-	43 strip	9 strip	34 strip	-	-	34 strip	8 strip	26 strip	10 strip	130000
34	Clamoxon 3 Mg	33000	11 botol	8 botol	3 botol	-	-	3 botol	3 botol	0	-	-	10 botol	2 botol	8 botol	-	-
35	Clamoxon 3 Mg	7000	33 strip	12 strip	11 strip	-	-	11 strip	6 strip	5 strip	-	-	45 strip	8 strip	37 strip	-	-
36	Clamoxon 15 Mg/5mg	82000	4 botol	3 botol	1 botol	-	-	11 botol	4 botol	7 botol	-	-	7 botol	2 botol	5 botol	-	-
37	Mazolal (Ketoconazole) 200 mg	4000	28 strip	12 strip	16 strip	-	-	16 strip	5 strip	11 strip	-	-	11 strip	9 strip	2 strip	-	-
38	Myonal	110000	14 strip	6 strip	8 strip	-	-	8 strip	7 strip	1 strip	-	-	41 strip	3 strip	38 strip	-	-
39	Myonal Powder 5gr	25000	10 botol	8 botol	2 botol	-	-	12 botol	7 botol	5 botol	-	-	15 botol	9 botol	6 botol	-	-
40	Neuralgin	10000	16 strip	5 strip	11 strip	11 strip	110000	40 strip	4 strip	36 strip	-	-	36 strip	7 strip	29 strip	-	-
41	Nextram 500 Mg	3000	22 strip	10 strip	12 strip	-	-	12 strip	8 strip	4 strip	-	-	44 strip	7 strip	37 strip	-	-
42	Nextram 40 Mg	200000	20 strip	6 strip	14 strip	-	-	14 strip	8 strip	6 strip	-	-	6 strip	5 strip	1 strip	-	-
43	Orvom	3000	17 strip	9 strip	8 strip	-	-	48 strip	9 strip	39 strip	-	-	39 strip	10 strip	29 strip	-	-
44	Orvomaxim	1500	33 strip	20 strip	13 strip	-	-	33 strip	18 strip	15 strip	-	-	35 strip	18 strip	17 strip	-	-
45	Orvomaxim 400 Mg	15000	23 strip	8 strip	15 strip	-	-	15 strip	10 strip	5 strip	-	-	25 strip	7 strip	18 strip	-	-
46	Orvomaxim 25 Mg	4000	14 strip	11 strip	3 strip	-	-	43 strip	11 strip	32 strip	-	-	32 strip	12 strip	20 strip	-	-
47	Orvomaxim 25 Mg	4000	23 strip	15 strip	8 strip	-	-	48 strip	13 strip	35 strip	-	-	35 strip	12 strip	23 strip	-	-
48	Orvomaxim 25 Mg	16000	41 strip	23 strip	18 strip	-	-	38 strip	24 strip	14 strip	-	-	34 strip	26 strip	8 strip	-	-
49	Orvomaxim 500 Mg	5000	20 strip	17 strip	3 strip	-	-	43 strip	16 strip	27 strip	-	-	27 strip	16 strip	11 strip	-	-
50	Orvomaxim 500 Mg/5Mg	8000	23 strip	14 strip	9 strip	-	-	49 strip	14 strip	35 strip	-	-	35 strip	12 strip	23 strip	-	-
51	Orvomaxim 500 Mg	4000	19 strip	17 strip	2 strip	-	-	42 strip	18 strip	24 strip	-	-	24 strip	17 strip	7 strip	-	-
52	Orvomaxim 100 Mg	40000	35 strip	4 strip	31 strip	-	-	31 strip	5 strip	26 strip	-	-	26 strip	3 strip	23 strip	-	-
53	Orvomaxim 0,5 Mg	2000	10 strip	5 strip	5 strip	-	-	45 strip	7 strip	38 strip	-	-	38 strip	8 strip	30 strip	-	-
54	Orvomaxim 500 Mg	8000	32 strip	4 strip	28 strip	-	-	28 strip	3 strip	25 strip	-	-	25 strip	5 strip	20 strip	-	-
55	Orvomaxim Cream	10000	9 tube	6 tube	3 tube	-	-	13 tube	7 tube	6 tube	-	-	16 tube	10 tube	6 tube	-	-
56	Orvomaxim Lotion 30 ML	100000	7 botol	5 botol	2 botol	-	-	12 botol	4 botol	8 botol	-	-	8 botol	2 botol	6 botol	-	-

* Merah = Pemesanan Pertama
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 *** Hijau = Pemesanan Ketiga

DATA OBAT PATEN 2021

57	50 Mg Tablet	40000	27 strip	12 strip	15 strip	-	-	15 strip	14 strip	1 strip	-	-	41 strip	15 strip	26 strip	-	-
58	Tablet	48000	4 botol	2 botol	2 botol	-	-	12 botol	1 botol	11 botol	-	-	11 botol	2 botol	9 botol	-	-
59	Tablet	15000	30 strip	14 strip	16 strip	-	-	36 strip	20 strip	16 strip	-	-	16 strip	11 strip	5 strip	-	-
60	cream	45000	7 tube	5 tube	2 tube	-	-	12 tube	7 tube	5 tube	-	-	5 tube	4 tube	1 tube	-	-
61	Tablet	10000	17 strip	11 strip	6 strip	-	-	46 strip	7 strip	39 strip	-	-	39 strip	5 strip	34 strip	-	-
62	Tablet	8000	27 strip	26 strip	1 strip	-	-	41 strip	25 strip	26 strip	-	-	26 strip	25 strip	1 strip	-	-
63	Tablet	74000	7 botol	3 botol	4 botol	-	-	14 botol	7 botol	7 botol	-	-	7 botol	3 botol	4 botol	-	-
64	10 Mg Tablet	20000	19 strip	8 strip	11 strip	-	-	31 strip	3 strip	27 strip	-	-	27 strip	3 strip	24 strip	-	-
65	Tablet	5000	30 strip	14 strip	16 strip	-	-	16 strip	12 strip	4 strip	-	-	44 strip	14 strip	30 strip	-	-
66	Tablet	5000	17 strip	2 strip	15 strip	8 strip	40000	7 strip	7 strip	0	-	-	40 strip	8 strip	32 strip	-	-
67	Tablet	3000	11 strip	10 strip	1 strip	-	-	41 strip	2 strip	39 strip	-	-	39 strip	2 strip	37 strip	-	-
68	25 Mg Supos	20000	6 supos	6 supos	0	-	-	10 supos	5 supos	5 supos	-	-	5 supos	5 supos	0	-	-
69	10 Mg Tablet	260000	16 strip	4 strip	12 strip	-	-	12 strip	2 strip	10 strip	-	-	10 strip	2 strip	8 strip	-	-
70	100 Mg Capsule	70000	7 botol	3 botol	4 botol	-	-	4 botol	2 botol	2 botol	-	-	7 botol	4 botol	3 botol	-	-
71	Tablet	4000	24 strip	7 strip	17 strip	-	-	17 strip	8 strip	9 strip	-	-	9 strip	7 strip	2 strip	-	-
72	Tablet Plus	3000	46 strip	37 strip	9 strip	-	-	49 strip	43 strip	6 strip	-	-	46 strip	42 strip	4 strip	-	-
73	40 Mg Tablet	6500	40 strip	12 strip	28 strip	-	-	28 strip	5 strip	23 strip	-	-	23 strip	2 strip	21 strip	-	-
74	Tablet	6000	17 strip	3 strip	14 strip	-	-	14 strip	7 strip	7 strip	-	-	7 strip	3 strip	4 strip	-	-
75	75 Mg Tablet	65000	13 strip	8 strip	5 strip	-	-	45 strip	9 strip	36 strip	-	-	36 strip	6 strip	30 strip	-	-
76	Tablet	4000	61 strip	49 strip	12 strip	-	-	52 strip	47 strip	5 strip	-	-	65 strip	48 strip	17 strip	-	-
77	Tablet	3000	21 strip	3 strip	18 strip	-	-	18 strip	2 strip	16 strip	-	-	16 strip	3 strip	13 strip	-	-
78	75mg/5 ml Sirup 60 ml	70000	8 botol	6 botol	2 botol	-	-	12 botol	3 botol	9 botol	-	-	9 botol	2 botol	7 botol	-	-
79	Tablet	5000	15 strip	5 strip	10 strip	-	-	10 strip	6 strip	4 strip	-	-	44 strip	7 strip	37 strip	-	-
80	300 mg Tablet	15000	49 strip	10 strip	39 strip	-	-	39 strip	16 strip	23 strip	-	-	23 strip	15 strip	8 strip	-	-
81	4 Mg Tablet	5000	42 strip	25 strip	17 strip	-	-	37 strip	24 strip	13 strip	-	-	33 strip	27 strip	6 strip	-	-
82	Tablet	45000	13 strip	8 strip	5 strip	-	-	45 strip	6 strip	39 strip	-	-	39 strip	9 strip	30 strip	10 strip	450000
83	30 mg Tablet	6000	30 strip	14 strip	16 strip	-	-	16 strip	11 strip	5 strip	-	-	45 strip	14 strip	31 strip	-	-
84	Sirup	60000	8 botol	4 botol	4 botol	-	-	4 botol	3 botol	1 botol	-	-	6 botol	4 botol	2 botol	-	-
85	Cream	18000	10 tube	6 tube	4 tube	-	-	9 tube	5 tube	4 tube	-	-	9 tube	6 tube	3 tube	-	-

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DATA OBAT PATEN 2021

86	Haklupa miik UIN Suska Riau	16000	9 strip	4 strip	5 strip	-	-	25 strip	11 strip	14 strip	-	-	14 strip	8 strip	6 strip	-	-	
87	Haklupa miik UIN Suska Riau	12000	12 strip	5 strip	7 strip	-	-	7 strip	4 strip	3 strip	-	-	3 strip	2 strip	1 strip	-	-	
88	Haklupa miik UIN Suska Riau	10000	44 strip	5 strip	39 strip	-	-	39 strip	8 strip	31 strip	-	-	31 strip	7 strip	24 strip	-	-	
89	Haklupa miik UIN Suska Riau	4000	32 strip	15 strip	17 strip	-	-	17 strip	5 strip	12 strip	-	-	12 strip	8 strip	4 strip	-	-	
90	Haklupa miik UIN Suska Riau	28000	9 botol	6 botol	3 botol	-	-	8 botol	4 botol	4 botol	-	-	9 botol	7 botol	2 botol	-	-	
91	Haklupa miik UIN Suska Riau	11000	26 strip	23 strip	3 strip	-	-	23 strip	20 strip	3 strip	-	-	23 strip	19 strip	4 strip	-	-	
92	Haklupa miik UIN Suska Riau	10000	33 strip	18 strip	15 strip	-	-	15 strip	10 strip	5 strip	-	-	25 strip	13 strip	12 strip	-	-	
93	Haklupa miik UIN Suska Riau	20000	1 botol	40 botol	1 botol	-	-	41 botol	41 botol	0	-	-	60 botol	40 botol	20 botol	-	-	
94	Haklupa miik UIN Suska Riau	9000	14 strip	7 strip	7 strip	-	-	7 strip	5 strip	2 strip	-	-	22 strip	8 strip	14 strip	-	-	
95	Haklupa miik UIN Suska Riau	100000	6 botol	5 botol	1 botol	-	-	11 botol	7 botol	4 botol	-	-	14 botol	10 botol	4 botol	-	-	
96	Haklupa miik UIN Suska Riau	6000	43 strip	9 strip	34 strip	-	-	34 strip	10 strip	24 strip	-	-	24 strip	7 strip	17 strip	-	-	
97	Haklupa miik UIN Suska Riau	3000	65 strip	46 strip	19 strip	-	-	59 strip	42 strip	17 strip	-	-	57 strip	43 strip	14 strip	-	-	
98	Haklupa miik UIN Suska Riau	4000	40 strip	7 strip	33 strip	-	-	33 strip	4 strip	29 strip	-	-	29 strip	6 strip	23 strip	-	-	
99	Haklupa miik UIN Suska Riau	24000	10 strip	5 strip	5 strip	-	-	5 strip	4 strip	1 strip	-	-	21 strip	5 strip	16 strip	-	-	
100	Haklupa miik UIN Suska Riau	38000	12 strip	10 strip	2 strip	-	-	22 strip	5 strip	17 strip	-	-	17 strip	6 strip	11 strip	-	-	
101	Haklupa miik UIN Suska Riau	140000	23 botol	23 botol	0	-	-	30 botol	26 botol	4 botol	-	-	24 botol	21 botol	3 botol	-	-	
102	Haklupa miik UIN Suska Riau	4000	13 strip	5 strip	8 strip	-	-	8 strip	8 strip	0	-	-	20 strip	6 strip	14 strip	-	-	
103	Haklupa miik UIN Suska Riau	75000	3 tube	1 tube	2 tube	-	-	2 tube	2 tube	0	-	-	5 tube	4 tube	1 tube	-	-	
104	Haklupa miik UIN Suska Riau	73000	16 strip	4 strip	12 strip	-	-	12 strip	7 strip	5 strip	-	-	5 strip	2 strip	3 strip	-	-	
105	Haklupa miik UIN Suska Riau	5000	9 strip	9 strip	0	-	-	20 strip	7 strip	13 strip	-	-	13 strip	9 strip	4 strip	-	-	
106	Haklupa miik UIN Suska Riau	4000	22 strip	14 strip	8 strip	-	-	28 strip	15 strip	13 strip	-	-	13 strip	5 strip	8 strip	-	-	
107	Haklupa miik UIN Suska Riau	190000	27 kotak	11 kotak	16 kotak	-	-	16 kotak	4 kotak	12 kotak	-	-	12 kotak	8 kotak	4 kotak	-	-	
108	Haklupa miik UIN Suska Riau	5000	48 strip	43 strip	5 strip	-	-	45 strip	40 strip	5 strip	-	-	45 strip	38 strip	7 strip	-	-	
109	Haklupa miik UIN Suska Riau	25000	47 strip	24 strip	23 strip	-	-	23 strip	20 strip	3 strip	-	-	23 strip	21 strip	2 strip	-	-	
110	Haklupa miik UIN Suska Riau	70000	6 botol	3 botol	3 botol	-	-	9 botol	6 botol	3 botol	-	-	8 botol	4 botol	4 botol	-	-	
111	Haklupa miik UIN Suska Riau	3000	44 strip	10 strip	34 strip	-	-	34 strip	12 strip	22 strip	-	-	22 strip	3 strip	19 strip	-	-	
112	Haklupa miik UIN Suska Riau	4000	40 strip	14 strip	26 strip	-	-	26 strip	13 strip	13 strip	-	-	13 strip	8 strip	5 strip	-	-	
113	Haklupa miik UIN Suska Riau	10000	46 strip	9 strip	37 strip	-	-	37 strip	4 strip	33 strip	-	-	33 strip	11 strip	22 strip	-	-	
Total Kerugian							150000						27000	580000				

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PENGOLAHAN METODE ABC

No	Nama Obat	Harga Jual	Ter jual	Pendapatan	% Pendapatan	Kumulatif % Pendapatan	Golongan Obat
1	Ventolin Inhaler	140000	283	39620000	11.388%	11.388%	A
2	Diane	190000	96	18240000	5.243%	16.631%	A
3	Nexium 40 Mg	200000	74	14800000	4.254%	20.885%	A
4	Epitor 10 Mg	290000	44	12760000	3.668%	24.552%	A
5	Pariet 10 Mg	260000	48	12480000	3.587%	28.140%	A
6	Salbutamol suspensi 500 mg/5 ml 100 ml	20000	490	9800000	2.817%	30.956%	A
7	Inpepsa Sirup 100 ml	95000	97	9215000	2.649%	33.605%	A
8	Depakene Sirup	226000	34	7684000	2.209%	35.814%	A
9	Mexon	12000	632	7584000	2.180%	37.994%	A
10	Lodia 2 Mg	20000	370	7400000	2.127%	40.120%	A
11	Histigo 6 Mg	20000	346	6920000	1.989%	42.110%	A
12	Gramamine 50 Mg	25000	258	6450000	1.854%	43.963%	A
13	Lapibal 500 Mg	40000	161	6440000	1.851%	45.815%	A
14	Imodium	120000	48	5760000	1.656%	47.470%	A
15	Myonal	110000	50	5500000	1.581%	49.051%	A
16	Pregabalin 75 Mg	65000	82	5330000	1.532%	50.583%	A
17	Alofar 100 Mg	10000	525	5250000	1.509%	52.092%	A
18	Rhinofed	45000	110	4950000	1.423%	53.515%	A
19	Tarivid Otic Sol	100000	48	4800000	1.380%	54.894%	A
20	Akilen (Tetes Telinga)	60000	78	4680000	1.345%	56.240%	A
21	Fg Troces	16000	292	4672000	1.343%	57.583%	A
22	Kandistatin Drops	65000	70	4550000	1.308%	58.890%	A
23	Fitaquin Cream	75000	59	4425000	1.272%	60.162%	A
24	Dobrizol	30000	147	4410000	1.268%	61.430%	A
25	Burnazin Cream	90000	47	4230000	1.216%	62.646%	A
26	Concor 2,5 Mg	73000	57	4161000	1.196%	63.842%	A
27	Mucopect 15 Mg/5ml	82000	50	4100000	1.178%	65.020%	A
28	Lezin Drops 15 ml	40000	101	4040000	1.161%	66.181%	A
29	Lameson 8 Mg	80000	49	3920000	1.127%	67.308%	A
30	Phenytoin 100 Mg Capsule	70000	55	3850000	1.107%	68.415%	A
31	Ryvel Sirup	60000	59	3540000	1.018%	69.432%	A
32	Kloridema Lotion 30 Ml	100000	35	3500000	1.006%	70.438%	B
33	Alegi	27000	128	3456000	0.993%	71.432%	B
34	Ranivel 5mg/5 ml Sirup 60 ml	70000	46	3220000	0.926%	72.357%	B
35	Valsartan 80 Mg	38000	81	3078000	0.885%	73.242%	B
36	Mertigo 6 Mg	50000	61	3050000	0.877%	74.118%	B
37	Solinfec	11000	276	3036000	0.873%	74.991%	B

yang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber: anggapan tidak mengutip hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah. dan memaparkan perubahan sebagai acuan.

Universitas Siska Riau

PENGOLAHAN METODE ABC

38		Cerini	55000	55	3025000	0.869%	75.861%	B
39	<p>Hak Cipta Dilindungi Undang-Undang</p> <p>1. Diarangi mengutip sebagian atau seluruh karya tulis ini tanpa mengemukakan dan menyebutkan sumber.</p> <p>2. Diarangi mengutip sebagian atau seluruh karya ilmiah, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.</p>	Borriginol N Oint	105000	28	2940000	0.845%	76.706%	B
40		Coneks Forte 125 Mg 60 Ml	70000	42	2940000	0.845%	77.551%	B
41		Nifural Sirup	74000	38	2812000	0.808%	78.359%	B
42		Molexflu	8000	333	2664000	0.766%	79.125%	B
43		Mixalgin	10000	253	2530000	0.727%	79.852%	B
44		Rivoltar 50 Mg	5000	503	2515000	0.723%	80.575%	B
45		Nebacetin Powder 5gr	25000	99	2475000	0.711%	81.286%	B
46		Licostan	15000	165	2475000	0.711%	81.997%	B
47		Retaphyl Sr 300 mg	15000	152	2280000	0.655%	82.653%	B
48		Melanox 2% Cream 15 g	45000	50	2250000	0.647%	83.300%	B
49		Pronicy	4000	562	2248000	0.646%	83.946%	B
50		Bidaxtam	14000	154	2156000	0.620%	84.565%	B
51		Tinordioli 28 Mg	24000	82	1968000	0.566%	85.131%	B
52		Sistenol Kaplet	28000	63	1764000	0.507%	85.638%	B
53		Spasminal	10000	168	1680000	0.483%	86.121%	B
54		Alofar 300 Mg	15000	110	1650000	0.474%	86.595%	B
55		Interdoxin 100 Mg	40000	41	1640000	0.471%	87.067%	B
56		Decubal Cream 40 g	65000	25	1625000	0.467%	87.534%	B
57		Molafate Sirup	33000	49	1617000	0.465%	87.998%	B
58		Molacord 0,5 Mg	13000	124	1612000	0.463%	88.462%	B
59		Akita Tablet	7000	227	1589000	0.457%	88.919%	B
60		Teosal	3000	506	1518000	0.436%	89.355%	B
61		Pamol 125 Mg	20000	75	1500000	0.431%	89.786%	B
62		Remafar 4 Mg	5000	300	1500000	0.431%	90.217%	C
63		Sagestam Cream	18000	82	1476000	0.424%	90.641%	C
64		Polofar Plus	3000	485	1455000	0.418%	91.060%	C
65		Hufadine	10000	141	1410000	0.405%	91.465%	C
66	Farsifen 400 Mg	15000	94	1410000	0.405%	91.870%	C	
67	Samquinor	16000	76	1216000	0.350%	92.220%	C	
68	Neuralgin	10000	120	1200000	0.345%	92.565%	C	
69	Lasal Sirup	48000	25	1200000	0.345%	92.910%	C	
70	Alletrol (Tetes Mata)	21000	56	1176000	0.338%	93.248%	C	
71	Norpid 10 Mg	20000	55	1100000	0.316%	93.564%	C	
72	Glocovance 500 Mg/5Mg	8000	132	1056000	0.304%	93.867%	C	
73	Cludepatic 500 Mg	5000	209	1045000	0.300%	94.168%	C	
74	Supertetra	9000	102	918000	0.264%	94.431%	C	
75	Groferton 30 mg	6000	149	894000	0.257%	94.688%	C	
76	Klorfeson Cream	10000	89	890000	0.256%	94.944%	C	
77	Inflason	4000	213	852000	0.245%	95.189%	C	

PENGOLAHAN METODE ABC

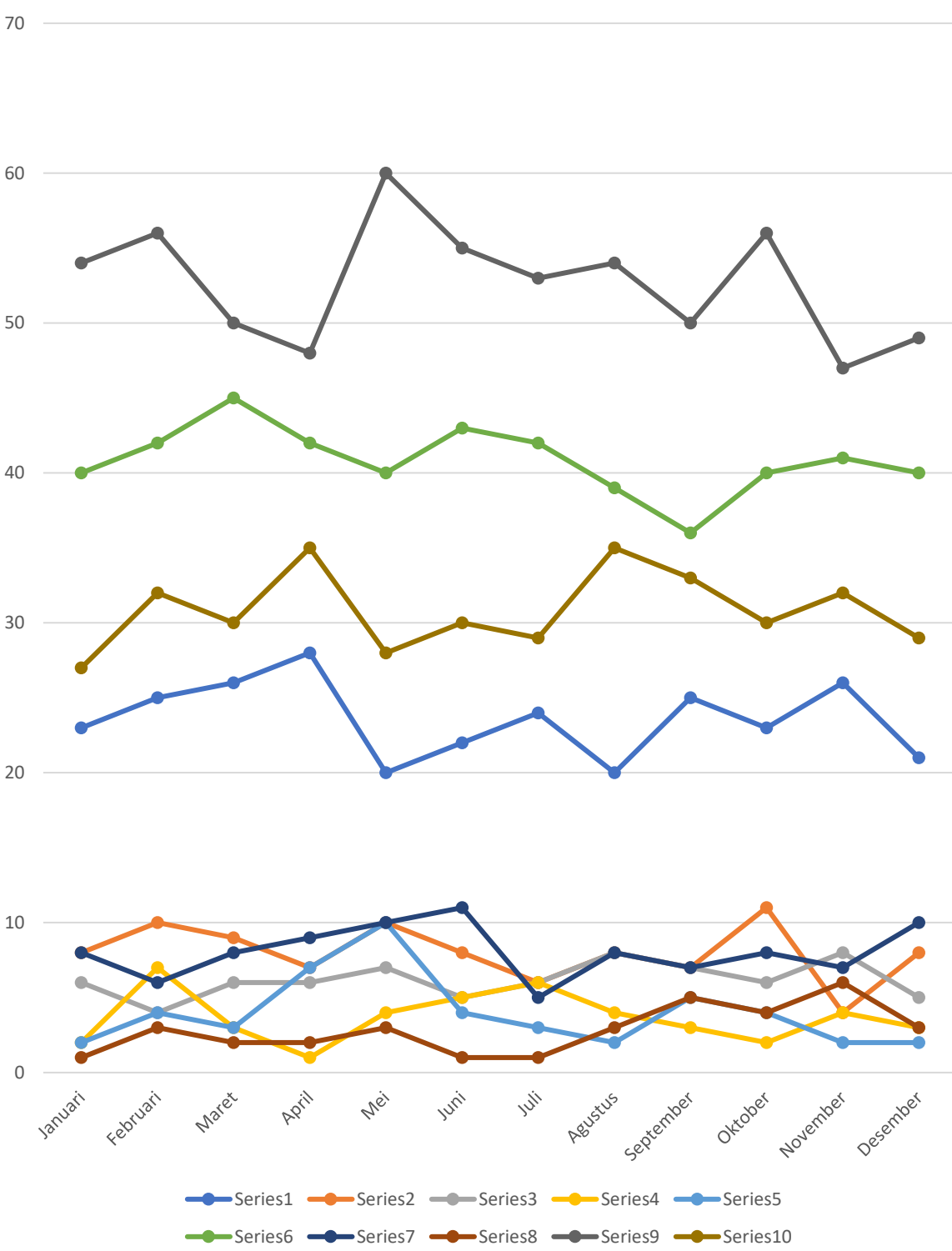
78	Grafamic	6000	138	828000	0.238%	95.427%	C
79	Omegestic	5000	152	760000	0.218%	95.646%	C
80	Sanprima	12000	63	756000	0.217%	95.863%	C
81	Estalex 50 Mg	10000	72	720000	0.207%	96.070%	C
82	Acifar 400 Mg	10000	70	700000	0.201%	96.271%	C
83	Seremig	10000	70	700000	0.201%	96.472%	C
84	Danasone	3000	233	699000	0.201%	96.673%	C
85	Molasic	7000	99	693000	0.199%	96.872%	C
86	Miratrim	10000	62	620000	0.178%	97.051%	C
87	Famoten 25 Mg	4000	153	612000	0.176%	97.226%	C
88	Farizol	4000	151	604000	0.174%	97.400%	C
89	Tera F	6000	98	588000	0.169%	97.569%	C
90	Cortidex	5000	116	580000	0.167%	97.736%	C
91	Muzoral (Ketoconazole) 200 mg	4000	128	512000	0.147%	97.883%	C
92	Captopril 50 Mg	5000	93	465000	0.134%	98.017%	C
93	Pratifar 40 Mg	6500	70	455000	0.131%	98.147%	C
94	Dexteem Plus	4000	112	448000	0.129%	98.276%	C
95	Buscopan Tablet	5000	88	440000	0.126%	98.403%	C
96	Soldexam	4000	110	440000	0.126%	98.529%	C
97	Alermax	3000	140	420000	0.121%	98.650%	C
98	Quantidex	5000	84	420000	0.121%	98.771%	C
99	Primadex Tablet	6000	68	408000	0.117%	98.888%	C
100	Katitra 500 Mg	8000	50	400000	0.115%	99.003%	C
101	Planotab	4000	98	392000	0.113%	99.115%	C
102	Novaxicam	1500	235	352500	0.101%	99.217%	C
103	Hormico 200 Mg	7000	47	329000	0.095%	99.311%	C
104	Haven 400 Mg	4000	81	324000	0.093%	99.404%	C
105	Omestan	5000	64	320000	0.092%	99.496%	C
106	Vesperum	4000	77	308000	0.089%	99.585%	C
107	Erfestan Forte	4000	71	284000	0.082%	99.667%	C
108	Norvom	3000	84	252000	0.072%	99.739%	C
109	Nexitra 500 Mg	3000	72	216000	0.062%	99.801%	C
110	Proxona	3000	67	201000	0.058%	99.859%	C
111	Etadexta	3000	66	198000	0.057%	99.916%	C
112	Oxicobal	3000	63	189000	0.054%	99.970%	C
113	Kalmethasone 0,5 Mg	2000	52	104000	0.030%	100.000%	C
	total		15216	347909500	100%		

Hak Cipta Dilindungi Undang-Undang
 1. Diarangi mengutip sebagian atau seluruh karya tulis ini tanpa mengemukakan dan menyebutkan sumber.
 a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 b. Pengutipan tidak mengaitkan kepentingan komersial atau keuntungan.

PENGOLAHAN METODE ABC



VINTOLIN - LODIA

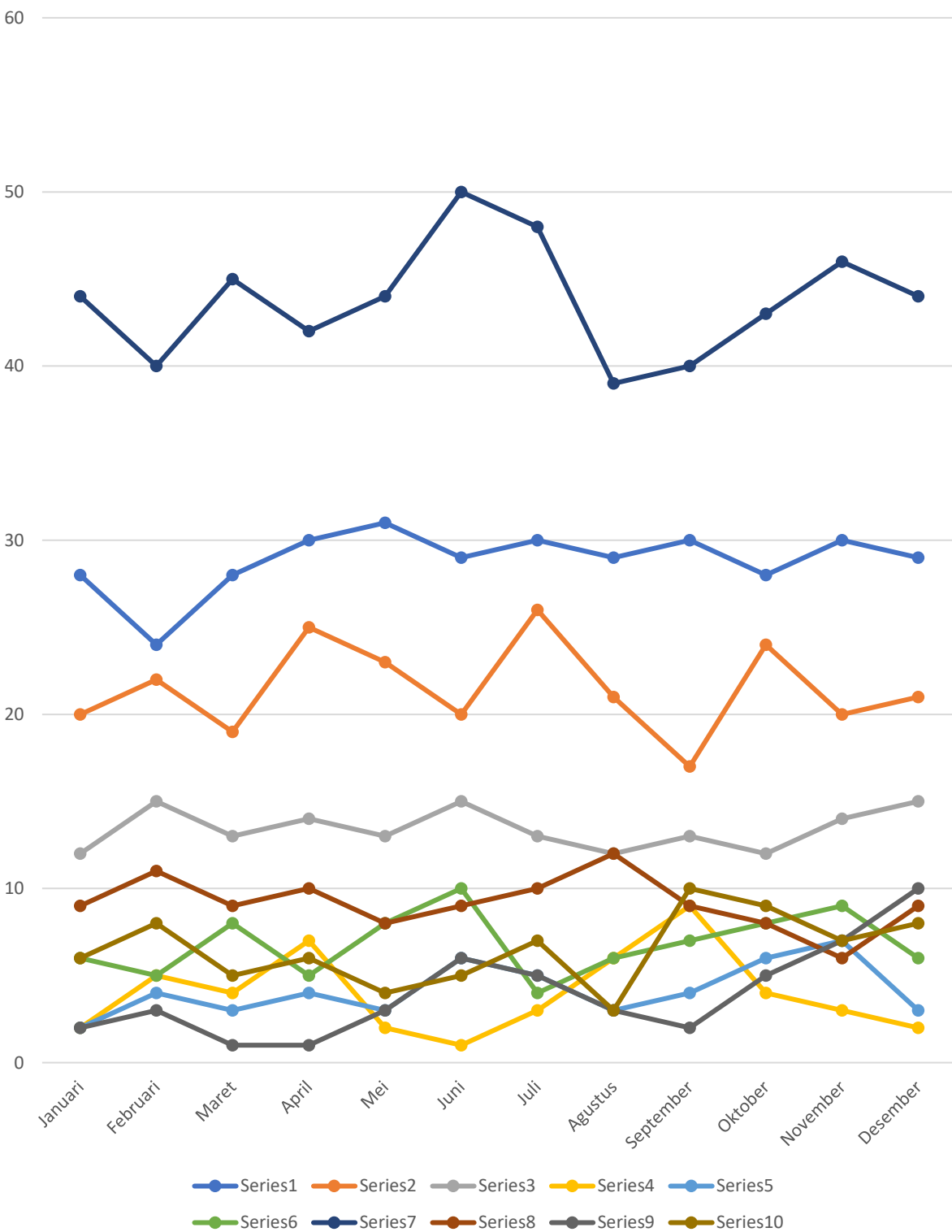


- a. Pengujiannya untuk kepentingan pencaharian, penerangan, penerangan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumpukan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

PENGOLAHAN METODE ABC



Histigo-Akilen

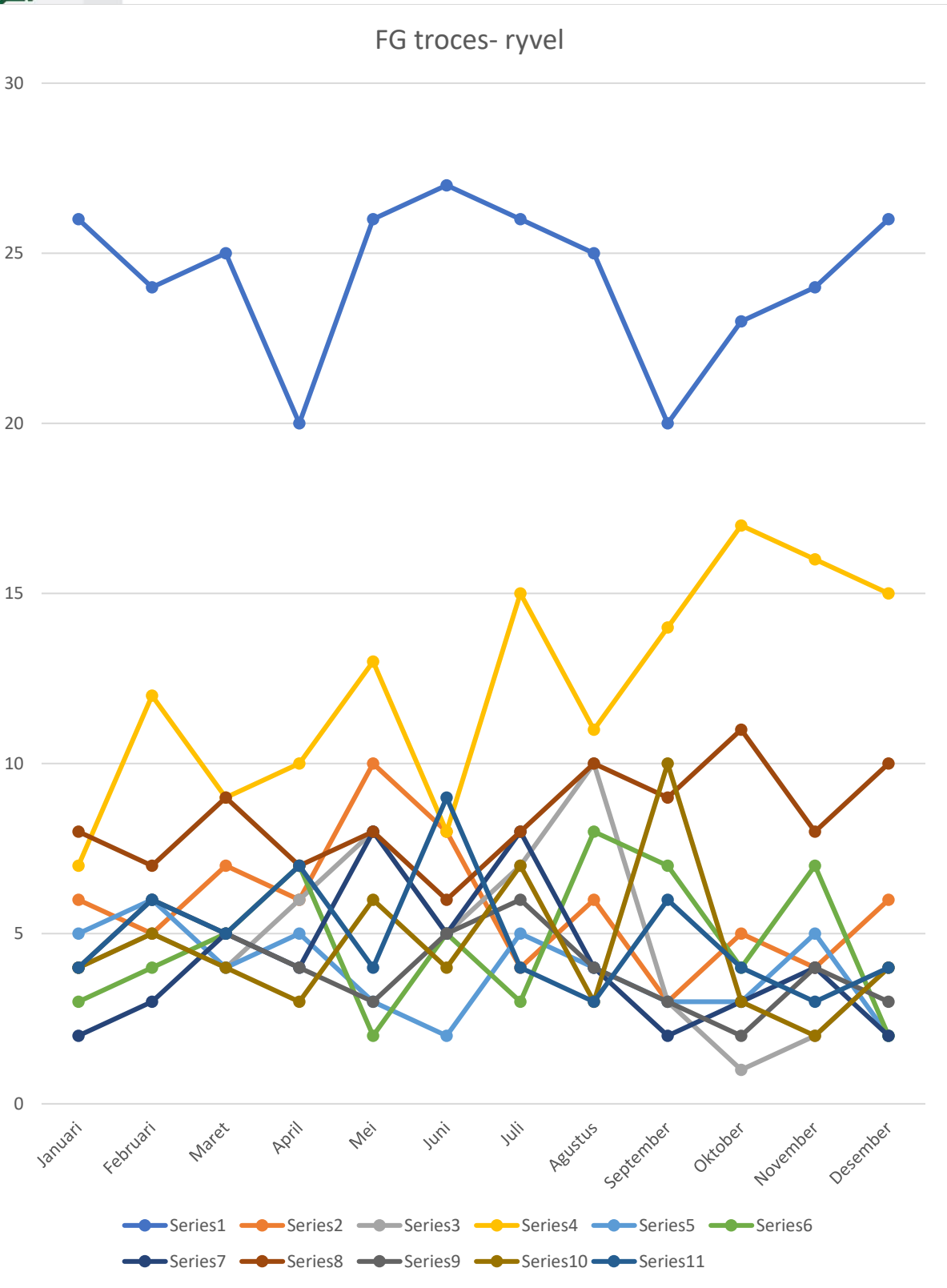


- a. Pengumpulan nanya untuk kepentingan penoidikan, peneniran, penuisan karya imian, penyusunan laporan, penuisan kritik atau tngauan satu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tuils ini dalam bentuk apapun tanpa izin UIN Suska Riau.

PENGOLAHAN METODE ABC



- a. Pengujiannya untuk kepentingan pencairan, penentuan, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



MOVING AVERAGE

2. **Periode 2**

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26	24	2	2	4	7.692%
April	28	25,5	2,5	2,5	6,25	8,929%
May	20	27	-7	7	49	35%
June	22	24	-2	2	4	9,091%
July	24	21	3	3	9	12,5%
August	20	23	-3	3	9	15%
September	25	22	3	3	9	12%
October	23	22,5	,5	,5	,25	2,174%
November	26	24	2	2	4	7,692%
December	21	24,5	-3,5	3,5	12,25	16,667%
TOTALS	283		-2,5	28,5	106,75	126,745%
AVERAGE	23,583		-0,25	2,85	10,675	12,674%
Next period forecast		23,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,653	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28	24,667	3,333	3,333	11,111	11,905%
May	20	26,333	-6,333	6,333	40,111	31,667%
June	22	24,667	-2,667	2,667	7,111	12,121%
July	24	23,333	,667	,667	,444	2,778%
August	20	22	-2	2	4	10%
September	25	22	3	3	9	12%
October	23	23	0	0	0	0%
November	26	22,667	3,333	3,333	11,111	12,821%
December	21	24,667	-3,667	3,667	13,444	17,46%
TOTALS	283		-4,333	25	96,333	110,751%
AVERAGE	23,583		-0,481	2,778	10,704	12,306%
Next period forecast		23,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,71	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20	25,5	-5,5	5,5	30,25	27,5%
June	22	24,75	-2,75	2,75	7,563	12,5%
July	24	24	0	0	0	0%
August	20	23,5	-3,5	3,5	12,25	17,5%
September	25	21,5	3,5	3,5	12,25	14%
October	23	22,75	,25	,25	,063	1,087%
November	26	23	3	3	9	11,538%
December	21	23,5	-2,5	2,5	6,25	11,905%
TOTALS	283		-7,5	21	77,625	96,03%
AVERAGE	23,583		-0,938	2,625	9,703	12,004%
Next period forecast		23,75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,597	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22	24,4	-2,4	2,4	5,76	10,909%
July	24	24,2	-,2	,2	,04	,833%
August	20	24	-4	4	16	20%
September	25	22,8	2,2	2,2	4,84	8,8%
October	23	22,2	,8	,8	,64	3,478%
November	26	22,8	3,2	3,2	10,24	12,308%
December	21	23,6	-2,6	2,6	6,76	12,381%
TOTALS	283		-3	15,4	44,28	68,709%
AVERAGE	23,583		-0,429	2,2	6,326	9,816%
Next period forecast		23	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,976	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24	24	0	0	0	0%
August	20	24,167	-4,167	4,167	17,361	20,833%
September	25	23,333	1,667	1,667	2,778	6,667%
October	23	23,167	-,167	,167	,028	,725%
November	26	22,333	3,667	3,667	13,444	14,103%
December	21	23,333	-2,333	2,333	5,444	11,111%
TOTALS	283		-1,333	12	39,056	53,438%
AVERAGE	23,583		-0,222	2	6,509	8,906%
Next period forecast		23,167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,125	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20	24	-4	4	16	20%
September	25	23,571	1,429	1,429	2,041	5,714%
October	23	23,571	-,571	,571	,327	2,484%
November	26	23,143	2,857	2,857	8,163	10,989%
December	21	22,857	-1,857	1,857	3,449	8,844%
TOTALS	283		-2,143	10,714	29,98	48,031%
AVERAGE	23,583		-0,429	2,143	5,996	9,606%
Next period forecast		23	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,161	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20					
September	25	23,5	1,5	1,5	2,25	6%
October	23	23,75	-,75	,75	,563	3,261%
November	26	23,5	2,5	2,5	6,25	9,615%
December	21	23,5	-2,5	2,5	6,25	11,905%
TOTALS	283		,75	7,25	15,313	30,781%
AVERAGE	23,583		,188	1,813	3,828	7,695%
Next period forecast		22,625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,767	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20					
September	25					
October	23	23,667	-,667	,667	,444	2,899%
November	26	23,667	2,333	2,333	5,444	8,974%
December	21	23,778	-2,778	2,778	7,716	13,228%
TOTALS	283		-1,111	5,778	13,605	25,1%
AVERAGE	23,583		-,37	1,926	4,535	8,367%
Next period forecast		23,222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,688	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20					
September	25					
October	23					
November	26	23,6	2,4	2,4	5,76	9,231%
December	21	23,9	-2,9	2,9	8,41	13,81%
TOTALS	283		-,5	5,3	14,17	23,04%
AVERAGE	23,583		-,25	2,65	7,085	11,52%
Next period forecast		23,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	IA	



2. Diane

1. Har 2
2. Diarangi mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9	9	0	0	0	0%
April	7	9.5	-2.5	2.5	6.25	35.714%
May	10	8	2	2	4	20%
June	8	8.5	-.5	.5	.25	6.25%
July	6	9	-3	3	9	50%
August	8	7	1	1	1	12.5%
September	7	7	0	0	0	0%
October	11	7.5	3.5	3.5	12.25	31.818%
November	4	9	-5	5	25	125%
December	8	7.5	.5	.5	.25	6.25%
TOTALS	96		-4	18	58	287.533%
AVERAGE	8		-4	1.8	5.8	28.753%
Next period forecast		6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.693	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7	9	-2	2	4	28.571%
May	10	8.667	1.333	1.333	1.778	13.333%
June	8	8.667	-.667	.667	.444	8.333%
July	6	8.333	-2.333	2.333	5.444	38.889%
August	8	8	0	0	0	0%
September	7	7.333	-.333	.333	.111	4.762%
October	11	7	4	4	16	36.364%
November	4	8.667	-4.667	4.667	21.778	116.667%
December	8	7.333	.667	.667	.444	8.333%
TOTALS	96		-4	16	50	255.253%
AVERAGE	8		-4.44	1.778	5.556	28.361%
Next period forecast		7.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.673	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10	8.5	1.5	1.5	2.25	15%
June	8	9	-1	1	1	12.5%
July	6	8.5	-2.5	2.5	6.25	41.667%
August	8	7.75	.25	.25	.063	3.125%
September	7	8	-1	1	1	14.286%
October	11	7.25	3.75	3.75	14.063	34.091%
November	4	8	-4	4	16	100%
December	8	7.5	.5	.5	.25	6.25%
TOTALS	96		-2.5	14.5	40.875	226.918%
AVERAGE	8		-.313	1.813	5.109	28.365%
Next period forecast		7.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.61	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8	8.8	-.8	.8	.64	10%
July	6	8.8	-2.8	2.8	7.84	46.667%
August	8	8	0	0	0	0%
September	7	7.8	-.8	.8	.64	11.429%
October	11	7.8	3.2	3.2	10.24	29.091%
November	4	8	-4	4	16	100%
December	8	7.2	.8	.8	.64	10%
TOTALS	96		-4.4	12.4	36	207.186%
AVERAGE	8		-.629	1.771	5.143	29.598%
Next period forecast		7.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.683	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6	8.667	-2.667	2.667	7.111	44.444%
August	8	8.333	-.333	.333	.111	4.167%
September	7	8	-1	1	1	14.286%
October	11	7.667	3.333	3.333	11.111	30.303%
November	4	8.333	-4.333	4.333	18.778	108.333%
December	8	7.333	.667	.667	.444	8.333%
TOTALS	96		-4.333	12.333	38.556	209.867%
AVERAGE	8		-.722	2.056	6.426	34.978%
Next period forecast		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.105	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8	8.286	-.286	.286	.082	3.571%
September	7	8.286	-1.286	1.286	1.653	18.367%
October	11	7.857	3.143	3.143	9.878	28.571%
November	4	8.143	-4.143	4.143	17.163	103.571%
December	8	7.714	.286	.286	.082	3.571%
TOTALS	96		-2.286	9.143	28.857	157.653%
AVERAGE	8		-.457	1.829	5.771	31.531%
Next period forecast		7.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.101	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8					
September	7	8.25	-1.25	1.25	1.563	17.857%
October	11	8.125	2.875	2.875	8.266	26.136%
November	4	8.25	-4.25	4.25	18.063	106.25%
December	8	7.625	.375	.375	.141	4.688%
TOTALS	96		-2.25	8.75	28.031	154.931%
AVERAGE	8		-.563	2.188	7.008	38.733%
Next period forecast		7.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.744	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8					
September	7					
October	11	8.111	2.889	2.889	8.346	26.263%
November	4	8.444	-4.444	4.444	19.753	111.111%
December	8	7.778	.222	.222	.049	2.778%
TOTALS	96		-1.333	7.556	28.148	140.152%
AVERAGE	8		-.444	2.519	9.383	46.717%
Next period forecast		7.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.305	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8					
September	7					
October	11					
November	4	8.4	-4.4	4.4	19.36	110%
December	8	8	0	0	0	0%
TOTALS	96		-4.4	4.4	19.36	110%
AVERAGE	8		-2.2	2.2	9.68	55%
Next period forecast		7.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarangi mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6	5	1	1	1	16.667%
April	6	5	1	1	1	16.667%
May	7	6	1	1	1	14.286%
June	5	6.5	-1.5	1.5	2.25	30%
July	6	6	0	0	0	0%
August	8	5.5	2.5	2.5	6.25	31.25%
September	7	7	0	0	0	0%
October	6	7.5	-1.5	1.5	2.25	25%
November	8	6.5	1.5	1.5	2.25	18.75%
December	5	7	-2	2	4	40%
TOTALS	74		2	12	20	192.619%
AVERAGE	6.167		.2	1.2	2	19.262%
Next perio...		6.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.581	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6	5.333	.667	.667	.444	11.111%
May	7	5.333	1.667	1.667	2.778	23.81%
June	5	6.333	-1.333	1.333	1.778	26.667%
July	6	6	0	0	0	0%
August	8	6	2	2	4	25%
September	7	6.333	.667	.667	.444	9.524%
October	6	7	-1	1	1	16.667%
November	8	7	1	1	1	12.5%
December	5	7	-2	2	4	40%
TOTALS	74		1.667	10.333	15.444	165.278%
AVERAGE	6.167		.185	1.148	1.716	18.364%
Next perio...		6.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.485	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7	5.5	1.5	1.5	2.25	21.429%
June	5	5.75	-.75	.75	.563	15%
July	6	6	0	0	0	0%
August	8	6	2	2	4	25%
September	7	6.5	.5	.5	.25	7.143%
October	6	6.5	-.5	.5	.25	8.333%
November	8	6.75	1.25	1.25	1.563	15.625%
December	5	7.25	-2.25	2.25	5.063	45%
TOTALS	74		1.75	8.75	13.938	137.53%
AVERAGE	6.167		.219	1.094	1.742	17.191%
Next perio...		6.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.524	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5	5.8	-.8	.8	.64	16%
July	6	5.6	.4	.4	.16	6.667%
August	8	6	2	2	4	25%
September	7	6.4	.6	.6	.36	8.571%
October	6	6.6	-.6	.6	.36	10%
November	8	6.4	1.6	1.6	2.56	20%
December	5	7	-2	2	4	40%
TOTALS	74		1.2	8	12.08	126.238%
AVERAGE	6.167		.171	1.143	1.726	18.034%
Next perio...		6.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.554	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6	5.667	.333	.333	.111	5.556%
August	8	5.667	2.333	2.333	5.444	29.167%
September	7	6.333	.667	.667	.444	9.524%
October	6	6.5	-.5	.5	.25	8.333%
November	8	6.5	1.5	1.5	2.25	18.75%
December	5	6.667	-1.667	1.667	2.778	33.333%
TOTALS	74		2.667	7	11.278	104.663%
AVERAGE	6.167		.444	1.167	1.88	17.444%
Next perio...		6.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.679	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8	5.714	2.286	2.286	5.224	28.571%
September	7	6	1	1	1	14.286%
October	6	6.429	-.429	.429	.184	7.143%
November	8	6.429	1.571	1.571	2.469	19.643%
December	5	6.714	-1.714	1.714	2.939	34.286%
TOTALS	74		2.714	7	11.816	103.929%
AVERAGE	6.167		.543	1.4	2.363	20.786%
Next perio...		6.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.985	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8					
September	7	6	1	1	1	14.286%
October	6	6.125	-.125	.125	.016	2.083%
November	8	6.375	1.625	1.625	2.641	20.313%
December	5	6.625	-1.625	1.625	2.641	32.5%
TOTALS	74		.875	4.375	6.297	69.182%
AVERAGE	6.167		.219	1.094	1.574	17.295%
Next perio...		6.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.774	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8					
September	7					
October	6	6.111	-.111	.111	.012	1.852%
November	8	6.111	1.889	1.889	3.568	23.611%
December	5	6.556	-1.556	1.556	2.42	31.111%
TOTALS	74		.222	3.556	6	56.574%
AVERAGE	6.167		.074	1.185	2	18.858%
Next perio...		6.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.449	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8					
September	7					
October	6					
November	8	6.1	1.9	1.9	3.61	23.75%
December	5	6.3	-1.3	1.3	1.69	26%
TOTALS	74		.6	3.2	5.3	49.75%
AVERAGE	6.167		.3	1.6	2.65	24.875%
Next period forecast		6.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbahayak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3	4.5	-1.5	1.5	2.25	50%
April	1	5	-4	4	16	400%
May	4	2	2	2	4	50%
June	5	2.5	2.5	2.5	6.25	50%
July	6	4.5	1.5	1.5	2.25	25%
August	4	5.5	-1.5	1.5	2.25	37.5%
September	3	5	-2	2	4	66.67%
October	2	3.5	-1.5	1.5	2.25	75%
November	4	2.5	1.5	1.5	2.25	37.5%
December	3	3	0	0	0	0%
TOTALS	44		-3	18	41.5	791.667%
AVERAGE	3.667		-3	1.8	4.15	79.167%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.278	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1	4	-3	3	9	300%
May	4	3.667	.333	.333	.111	8.333%
June	5	2.667	2.333	2.333	5.444	46.667%
July	6	3.333	2.667	2.667	7.111	44.444%
August	4	5	-1	1	1	25%
September	3	5	-2	2	4	66.667%
October	2	4.333	-2.333	2.333	5.444	116.667%
November	4	3	1	1	1	25%
December	3	3	0	0	0	0%
TOTALS	44		-2	14.667	33.111	632.778%
AVERAGE	3.667		-.222	1.63	3.679	70.309%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.175	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4	3.25	.75	.75	.563	18.75%
June	5	3.75	1.25	1.25	1.563	25%
July	6	3.25	2.75	2.75	7.563	45.833%
August	4	4	0	0	0	0%
September	3	4.75	-1.75	1.75	3.063	58.333%
October	2	4.5	-2.5	2.5	6.25	125%
November	4	3.75	.25	.25	.063	6.25%
December	3	3.25	-.25	.25	.063	8.333%
TOTALS	44		.5	9.5	19.125	287.5%
AVERAGE	3.667		.063	1.188	2.391	35.938%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.785	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5	3.4	1.6	1.6	2.56	32%
July	6	4	2	2	4	33.333%
August	4	3.8	.2	.2	.04	5%
September	3	4	-1	1	1	33.333%
October	2	4.4	-2.4	2.4	5.76	120%
November	4	4	0	0	0	0%
December	3	3.8	-.8	.8	.64	26.667%
TOTALS	44		-.4	8	14	250.333%
AVERAGE	3.667		-.057	1.143	2	35.762%
Next perio...		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.673	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6	3.667	2.333	2.333	5.444	38.889%
August	4	4.333	-.333	.333	.111	8.333%
September	3	3.833	-.833	.833	.694	27.778%
October	2	3.833	-1.833	1.833	3.361	91.667%
November	4	4	0	0	0	0%
December	3	4	-1	1	1	33.333%
TOTALS	44		-1.667	6.333	10.611	200%
AVERAGE	3.667		-.278	1.056	1.769	33.333%
Next perio...		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.629	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4	4	0	0	0	0%
September	3	4.286	-1.286	1.286	1.653	42.857%
October	2	3.714	-1.714	1.714	2.939	85.714%
November	4	3.571	.429	.429	.184	10.714%
December	3	4	-1	1	1	33.333%
TOTALS	44		-3.571	4.429	5.776	172.619%
AVERAGE	3.667		-.714	.886	1.155	34.524%
Next perio...		3.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.388	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4					
September	3	4	-1	1	1	33.333%
October	2	4.125	-2.125	2.125	4.516	106.25%
November	4	3.5	.5	.5	.25	12.5%
December	3	3.625	-.625	.625	.391	20.833%
TOTALS	44		-3.25	4.25	6.156	172.917%
AVERAGE	3.667		-.813	1.063	1.539	43.229%
Next perio...		3.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.754	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4					
September	3					
October	2	3.889	-1.889	1.889	3.568	94.444%
November	4	3.889	.111	.111	.012	2.778%
December	3	3.556	-.556	.556	.309	18.519%
TOTALS	44		-2.333	2.556	3.889	115.741%
AVERAGE	3.667		-.778	.852	1.296	38.58%
Next perio...		3.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.972	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4					
September	3					
October	2					
November	4	3.7	.3	.3	.09	7.5%
December	3	3.9	-.9	.9	.81	30%
TOTALS	44		-.6	1.2	.9	37.5%
AVERAGE	3.667		-.3	.6	.45	18.75%
Next perio...		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3	3	0	0	0	0%
April	7	3,5	3,5	3,5	12,25	50%
May	10	5	5	5	25	50%
June	4	8,5	-4,5	4,5	20,25	112,5%
July	3	7	-4	4	16	133,333%
August	2	3,5	-1,5	1,5	2,25	75%
September	5	2,5	2,5	2,5	6,25	50%
October	4	3,5	,5	,5	,25	12,5%
November	2	4,5	-2,5	2,5	6,25	125%
December	2	3	-1	1	1	50%
TOTALS	48		-2	25	89,5	658,333%
AVERAGE	4		-2	2,5	8,95	65,833%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,345	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7	3	4	4	16	57,143%
May	10	4,667	5,333	5,333	28,444	53,333%
June	4	6,667	-2,667	2,667	7,111	66,667%
July	3	7	-4	4	16	133,333%
August	2	5,667	-3,667	3,667	13,444	183,333%
September	5	3	2	2	4	40%
October	4	3,333	,667	,667	,444	16,667%
November	2	3,667	-1,667	1,667	2,778	83,333%
December	2	3,667	-1,667	1,667	2,778	83,333%
TOTALS	48		-1,667	25,667	91	717,143%
AVERAGE	4		-,185	2,852	10,111	79,683%
Next perio...		2,667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,606	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10	4	6	6	36	60%
June	4	6	-2	2	4	50%
July	3	6	-3	3	9	100%
August	2	6	-4	4	16	200%
September	5	4,75	,25	,25	,063	5%
October	4	3,5	,5	,5	,25	12,5%
November	2	3,5	-1,5	1,5	2,25	75%
December	2	3,25	-1,25	1,25	1,563	62,5%
TOTALS	48		-5	18,5	69,125	565%
AVERAGE	4		-625	2,313	8,641	70,625%
Next perio...		3,25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,394	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4	5,2	-1,2	1,2	1,44	30%
July	3	5,6	-2,6	2,6	6,76	86,667%
August	2	5,4	-3,4	3,4	11,56	170%
September	5	5,2	-,2	,2	,04	4%
October	4	4,8	-,8	,8	,64	20%
November	2	3,6	-1,6	1,6	2,56	80%
December	2	3,2	-1,2	1,2	1,44	60%
TOTALS	48		-11	11	24,44	450,667%
AVERAGE	4		-1,571	1,571	3,491	64,381%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,211	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3	5	-2	2	4	66,667%
August	2	5,167	-3,167	3,167	10,028	158,333%
September	5	4,833	,167	,167	,028	3,333%
October	4	5,167	-1,167	1,167	1,361	29,167%
November	2	4,667	-2,667	2,667	7,111	133,333%
December	2	3,333	-1,333	1,333	1,778	66,667%
TOTALS	48		-10,167	10,5	24,306	457,5%
AVERAGE	4		-1,694	1,75	4,051	76,25%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,465	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2	4,714	-2,714	2,714	7,367	135,714%
September	5	4,714	,286	,286	,082	5,714%
October	4	4,857	-,857	,857	,735	21,429%
November	2	5	-3	3	9	150%
December	2	4,286	-2,286	2,286	5,224	114,286%
TOTALS	48		-8,571	9,143	22,408	427,143%
AVERAGE	4		-1,714	1,829	4,482	85,429%
Next perio...		3,143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,733	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2					
September	5	4,375	,625	,625	,391	12,5%
October	4	4,75	-,75	,75	,563	18,75%
November	2	4,75	-2,75	2,75	7,563	137,5%
December	2	4,625	-2,625	2,625	6,891	131,25%
TOTALS	48		-5,5	6,75	15,406	300%
AVERAGE	4		-1,375	1,688	3,852	75%
Next perio...		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,775	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2					
September	5					
October	4	4,444	-,444	,444	,198	11,111%
November	2	4,667	-2,667	2,667	7,111	133,333%
December	2	4,444	-2,444	2,444	5,975	122,222%
TOTALS	48		-5,556	5,556	13,284	266,667%
AVERAGE	4		-1,852	1,852	4,428	88,889%
Next perio...		4,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,645	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2					
September	5					
October	4					
November	2	4,4	-2,4	2,4	5,76	120%
December	2	4,4	-2,4	2,4	5,76	120%
TOTALS	48		-4,8	4,8	11,52	240%
AVERAGE	4		-2,4	2,4	5,76	120%
Next perio...		4,2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



6. Susralfa Suspensi 500 mg/5 ml 100 ml

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45	41	4	4	16	8.889%
April	42	43,5	-1,5	1,5	2,25	3,571%
May	40	43,5	-3,5	3,5	12,25	8,75%
June	43	41	2	2	4	4,651%
July	42	41,5	,5	,5	25	1,19%
August	39	42,5	-3,5	3,5	12,25	8,974%
September	36	40,5	-4,5	4,5	20,25	12,5%
October	40	37,5	2,5	2,5	6,25	6,25%
November	41	38	3	3	9	7,317%
December	40	40,5	-,5	,5	25	1,25%
TOTALS	490		-1,5	25,5	82,75	63,343%
AVERAGE	40,833		-1,5	2,55	8,275	6,334%
Next perio...		40,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,216	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43	41,8	1,2	1,2	1,44	2,791%
July	42	42,4	-,4	,4	,16	,952%
August	39	42,4	-3,4	3,4	11,56	8,718%
September	36	41,2	-5,2	5,2	27,04	14,444%
October	40	40	0	0	0	0%
November	41	40	1	1	1	2,439%
December	40	39,6	,4	,4	,16	1%
TOTALS	490		-6,4	11,6	41,36	30,345%
AVERAGE	40,833		-,914	1,657	5,909	4,335%
Next perio...		39,2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,876	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39					
September	36	41,625	-5,625	5,625	31,641	15,625%
October	40	41,125	-1,125	1,125	1,266	2,813%
November	41	40,875	,125	,125	,016	,305%
December	40	40,375	-,375	,375	,141	,938%
TOTALS	490		-7	7,25	33,063	19,68%
AVERAGE	40,833		-1,75	1,813	8,266	4,92%
Next perio...		40,125	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4,066	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42	42,333	-,333	,333	,111	,794%
May	40	43	-3	3	9	7,5%
June	43	42,333	,667	,667	,444	1,55%
July	42	41,667	,333	,333	,111	,794%
August	39	41,667	-2,667	2,667	7,111	6,838%
September	36	41,333	-5,333	5,333	28,444	14,815%
October	40	39	1	1	1	2,5%
November	41	38,333	2,667	2,667	7,111	6,504%
December	40	39	1	1	1	2,5%
TOTALS	490		-5,667	17	54,333	43,794%
AVERAGE	40,833		-,63	1,889	6,037	4,866%
Next perio...		40,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,786	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42	42	0	0	0	0%
August	39	42,333	-3,333	3,333	11,111	8,547%
September	36	41,833	-5,833	5,833	34,028	16,204%
October	40	40,333	-,333	,333	,111	,833%
November	41	40	1	1	1	2,439%
December	40	40,167	-,167	,167	,028	,417%
TOTALS	490		-8,667	10,667	46,278	28,44%
AVERAGE	40,833		-1,444	1,778	7,713	4,74%
Next perio...		39,667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,401	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39					
September	36					
October	40	41	-1	1	1	2,5%
November	41	41	0	0	0	0%
December	40	40,889	-,889	,889	,79	2,222%
TOTALS	490		-1,889	1,889	1,79	4,722%
AVERAGE	40,833		-,63	,63	,597	1,574%
Next perio...		40,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,338	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40	42,25	-2,25	2,25	5,063	5,625%
June	43	42,25	,75	,75	,563	1,744%
July	42	42,5	-,5	,5	,25	1,19%
August	39	41,75	-2,75	2,75	7,563	7,051%
September	36	41	-5	5	25	13,889%
October	40	40	0	0	0	0%
November	41	39,25	1,75	1,75	3,063	4,268%
December	40	39	1	1	1	2,5%
TOTALS	490		-7	14	42,5	36,268%
AVERAGE	40,833		-,875	1,75	5,313	4,534%
Next perio...		39,25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,661	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39	42	-3	3	9	7,692%
September	36	41,857	-5,857	5,857	34,306	16,27%
October	40	41	-1	1	1	2,5%
November	41	40,286	,714	,714	,51	1,742%
December	40	40,143	-,143	,143	,02	,357%
TOTALS	490		-9,286	10,714	44,837	28,561%
AVERAGE	40,833		-1,857	2,143	8,967	5,712%
Next perio...		40,143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,866	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39					
September	36					
October	40					
November	41	40,9	,1	,1	,01	,244%
December	40	41	-1	1	1	2,5%
TOTALS	490		-9	1,1	1,01	2,744%
AVERAGE	40,833		-,55	,55	,505	1,372%
Next perio...		40,8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

7 **Keepsa** Sirup 100 ml

2. Diarahkan mengemukakan dan memperbaiki sebagai tuis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8	7	1	1	1	12,5%
April	9	7	2	2	4	22,222%
May	10	8,5	1,5	1,5	2,25	15%
June	11	9,5	1,5	1,5	2,25	13,636%
July	5	10,5	-5,5	5,5	30,25	110%
August	8	8	0	0	0	0%
September	7	6,5	,5	,5	,25	7,143%
October	8	7,5	,5	,5	,25	6,25%
November	7	7,5	-,5	,5	,25	7,143%
December	10	7,5	2,5	2,5	6,25	25%
TOTALS	97		3,5	15,5	46,75	218,894%
AVERAGE	8,083		,35	1,55	4,675	21,889%
Next perio...		8,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,417	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9	7,333	1,667	1,667	2,778	18,519%
May	10	7,667	2,333	2,333	5,444	23,333%
June	11	9	2	2	4	18,182%
July	5	10	-5	5	25	100%
August	8	8,667	-,667	,667	,444	8,333%
September	7	8	-1	1	1	14,286%
October	8	6,667	1,333	1,333	1,778	16,667%
November	7	7,667	-,667	,667	,444	9,524%
December	10	7,333	2,667	2,667	7,111	26,667%
TOTALS	97		2,667	17,333	48	235,51%
AVERAGE	8,083		,296	1,926	5,333	26,168%
Next perio...		8,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,619	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10	7,75	2,25	2,25	5,063	22,5%
June	11	8,25	2,75	2,75	7,563	25%
July	5	9,5	-4,5	4,5	20,25	90%
August	8	8,75	-,75	,75	,563	9,375%
September	7	8,5	-1,5	1,5	2,25	21,429%
October	8	7,75	,25	,25	,063	3,125%
November	7	7	0	0	0	0%
December	10	7,5	2,5	2,5	6,25	25%
TOTALS	97		1	14,5	42	196,429%
AVERAGE	8,083		,125	1,813	5,25	24,554%
Next perio...		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,646	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11	8,2	2,8	2,8	7,84	25,455%
July	5	8,8	-3,8	3,8	14,44	76%
August	8	8,6	-,6	,6	,36	7,5%
September	7	8,6	-1,6	1,6	2,56	22,857%
October	8	8,2	-,2	,2	,04	2,5%
November	7	7,8	-,8	,8	,64	11,429%
December	10	7	3	3	9	30%
TOTALS	97		-1,2	12,8	34,88	175,74%
AVERAGE	8,083		-,171	1,829	4,983	25,106%
Next perio...		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,641	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5	8,667	-3,667	3,667	13,444	73,333%
August	8	8,167	-,167	,167	,028	2,083%
September	7	8,5	-1,5	1,5	2,25	21,429%
October	8	8,333	-,333	,333	,111	4,167%
November	7	8,167	-1,167	1,167	1,361	16,667%
December	10	7,667	2,333	2,333	5,444	23,333%
TOTALS	97		-4,5	9,167	22,639	141,012%
AVERAGE	8,083		-,75	1,528	3,773	23,502%
Next perio...		7,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,379	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8	8,143	-,143	,143	,02	1,786%
September	7	8,143	-1,143	1,143	1,306	16,327%
October	8	8,286	-,286	,286	,082	3,571%
November	7	8,286	-1,286	1,286	1,653	18,367%
December	10	8	2	2	4	20%
TOTALS	97		-,857	4,857	7,061	60,051%
AVERAGE	8,083		-,171	,971	1,412	12,01%
Next perio...		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,534	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8					
September	7	8,125	-1,125	1,125	1,266	16,071%
October	8	8	0	0	0	0%
November	7	8,25	-1,25	1,25	1,563	17,857%
December	10	8,125	1,875	1,875	3,516	18,75%
TOTALS	97		-,5	4,25	6,344	52,679%
AVERAGE	8,083		-,125	1,063	1,586	13,17%
Next perio...		8,25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,781	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8					
September	7					
October	8	8	0	0	0	0%
November	7	8	-1	1	1	14,286%
December	10	8,111	1,889	1,889	3,568	18,889%
TOTALS	97		,889	2,889	4,568	33,175%
AVERAGE	8,083		,296	,963	1,523	11,058%
Next perio...		8,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,137	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8					
September	7					
October	8					
November	7	8	-1	1	1	14,286%
December	10	7,9	2,1	2,1	4,41	21%
TOTALS	97		1,1	3,1	5,41	35,286%
AVERAGE	8,083		,55	1,55	2,705	17,643%
Next perio...		8,3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarangi mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2	2	0	0	0	0%
April	2	2.5	-0.5	0.5	0.25	25%
May	3	2	1	1	1	33.333%
June	1	2.5	-1.5	1.5	2.25	150%
July	1	2	-1	1	1	100%
August	3	1	2	2	4	66.667%
September	5	2	3	3	9	60%
October	4	4	0	0	0	0%
November	6	4.5	1.5	1.5	2.25	25%
December	3	5	-2	2	4	66.667%
TOTALS	34		2.5	12.5	23.75	52.667%
AVERAGE	2.833		.25	1.25	2.375	52.667%
Next perio...		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.723	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2	2	0	0	0	0%
May	3	2.333	.667	.667	.444	22.222%
June	1	2.333	-1.333	1.333	1.778	133.333%
July	1	2	-1	1	1	100%
August	3	1.667	1.333	1.333	1.778	44.444%
September	5	1.667	3.333	3.333	11.111	66.667%
October	4	3	1	1	1	25%
November	6	4	2	2	4	33.333%
December	3	5	-2	2	4	66.667%
TOTALS	34		4	12.667	25.111	491.667%
AVERAGE	2.833		.444	1.407	2.79	54.63%
Next perio...		4.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.894	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3	2	1	1	1	33.333%
June	1	2.5	-1.5	1.5	2.25	150%
July	1	2	-1	1	1	100%
August	3	1.75	1.25	1.25	1.563	41.667%
September	5	2	3	3	9	60%
October	4	2.5	1.5	1.5	2.25	37.5%
November	6	3.25	2.75	2.75	7.563	45.833%
December	3	4.5	-1.5	1.5	2.25	50%
TOTALS	34		5.5	13.5	26.875	518.333%
AVERAGE	2.833		.688	1.688	3.359	64.792%
Next perio...		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.116	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1	2.2	-1.2	1.2	1.44	120%
July	1	2.2	-1.2	1.2	1.44	120%
August	3	1.8	1.2	1.2	1.44	40%
September	5	2	3	3	9	60%
October	4	2.6	1.4	1.4	1.96	35%
November	6	2.8	3.2	3.2	10.24	53.333%
December	3	3.8	-0.8	0.8	0.64	26.667%
TOTALS	34		5.6	12	26.16	455%
AVERAGE	2.833		.8	1.714	3.737	65%
Next perio...		4.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.287	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1	2	-1	1	1	100%
August	3	2	1	1	1	33.333%
September	5	2	3	3	9	60%
October	4	2.5	1.5	1.5	2.25	37.5%
November	6	2.833	3.167	3.167	10.028	52.778%
December	3	3.333	-0.333	0.333	0.111	11.111%
TOTALS	34		7.333	10	23.389	294.722%
AVERAGE	2.833		1.222	1.667	3.898	49.12%
Next perio...		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.418	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3	1.857	1.143	1.143	1.306	38.095%
September	5	2.143	2.857	2.857	8.163	57.143%
October	4	2.429	1.571	1.571	2.469	39.286%
November	6	2.714	3.286	3.286	10.796	54.762%
December	3	3.286	-0.286	0.286	0.082	9.524%
TOTALS	34		8.571	9.143	22.816	198.81%
AVERAGE	2.833		1.714	1.829	4.563	39.762%
Next perio...		3.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.758	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3					
September	5	2	3	3	9	60%
October	4	2.5	1.5	1.5	2.25	37.5%
November	6	2.625	3.375	3.375	11.391	56.25%
December	3	3.125	-0.125	0.125	0.016	4.167%
TOTALS	34		7.75	8	22.656	157.917%
AVERAGE	2.833		1.938	2	5.664	39.479%
Next perio...		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.366	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3					
September	5					
October	4	2.333	1.667	1.667	2.778	41.667%
November	6	2.667	3.333	3.333	11.111	55.556%
December	3	3	0	0	0	0%
TOTALS	34		5	5	13.889	97.222%
AVERAGE	2.833		1.667	1.667	4.663	32.407%
Next perio...		3.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.727	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3					
September	5					
October	4					
November	6	2.5	3.5	3.5	12.25	58.333%
December	3	3	0	0	0	0%
TOTALS	34		3.5	3.5	12.25	58.333%
AVERAGE	2.833		1.75	1.75	6.125	29.167%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50	55	-5	5	25	10%
April	48	53	-5	5	25	10,417%
May	60	49	11	11	121	18,333%
June	55	54	1	1	1	1,818%
July	53	57,5	-4,5	4,5	20,25	8,491%
August	54	54	0	0	0	0%
September	50	53,5	-3,5	3,5	12,25	7%
October	56	52	4	4	16	7,143%
November	47	53	-6	6	36	12,766%
December	49	51,5	-2,5	2,5	6,25	5,102%
TOTALS	632		-10,5	42,5	262,75	81,07%
AVERAGE	52,667		-1,05	4,25	26,275	8,107%
Next perio...		48	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5,731	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48	53,333	-5,333	5,333	28,444	11,111%
May	60	51,333	8,667	8,667	75,111	14,444%
June	55	52,667	2,333	2,333	5,444	4,242%
July	53	54,333	-1,333	1,333	1,778	2,516%
August	54	56	-2	2	4	3,704%
September	50	54	-4	4	16	8%
October	56	52,333	3,667	3,667	13,444	6,548%
November	47	53,333	-6,333	6,333	40,111	13,475%
December	49	51	-2	2	4	4,082%
TOTALS	632		-6,333	35,667	188,333	68,122%
AVERAGE	52,667		-7,04	3,963	20,926	7,569%
Next perio...		50,667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5,187	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60	52	8	8	64	13,333%
June	55	53,5	1,5	1,5	2,25	2,727%
July	53	53,25	-.25	,25	,063	,472%
August	54	54	0	0	0	0%
September	50	55,5	-5,5	5,5	30,25	11%
October	56	53	3	3	9	5,357%
November	47	53,25	-6,25	6,25	39,063	13,298%
December	49	51,75	-2,75	2,75	7,563	5,612%
TOTALS	632		-2,25	27,25	152,188	51,8%
AVERAGE	52,667		-.281	3,406	19,023	6,475%
Next perio...		50,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5,036	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55	53,6	1,4	1,4	1,96	2,545%
July	53	53,8	-.8	,8	,64	1,509%
August	54	53,2	,8	,8	,64	1,481%
September	50	54	-4	4	16	8%
October	56	54,4	1,6	1,6	2,56	2,857%
November	47	53,6	-6,6	6,6	43,56	14,043%
December	49	52	-3	3	9	6,122%
TOTALS	632		-10,6	18,2	74,36	36,559%
AVERAGE	52,667		-1,514	2,6	10,623	5,223%
Next perio...		51,2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,856	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53	53,833	-.833	,833	,694	1,572%
August	54	53,667	,333	,333	,111	,617%
September	50	53,333	-3,333	3,333	11,111	6,667%
October	56	53,333	2,667	2,667	7,111	4,762%
November	47	54,667	-7,667	7,667	58,778	16,312%
December	49	52,5	-3,5	3,5	12,25	7,143%
TOTALS	632		-12,333	18,333	90,056	37,073%
AVERAGE	52,667		-2,056	3,056	15,009	6,179%
Next perio...		51,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4,745	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54	53,714	,286	,286	,082	,529%
September	50	53,714	-3,714	3,714	13,796	7,429%
October	56	52,857	3,143	3,143	9,878	5,612%
November	47	53,714	-6,714	6,714	45,082	14,286%
December	49	53,571	-4,571	4,571	20,898	9,329%
TOTALS	632		-11,571	18,429	89,735	37,185%
AVERAGE	52,667		-2,314	3,686	17,947	7,437%
Next perio...		52	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5,469	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54					
September	50	53,75	-3,75	3,75	14,063	7,5%
October	56	53,25	2,75	2,75	7,563	4,911%
November	47	53,25	-6,25	6,25	39,063	13,298%
December	49	52,875	-3,875	3,875	15,016	7,908%
TOTALS	632		-11,125	16,625	75,703	33,617%
AVERAGE	52,667		-2,781	4,156	18,926	8,404%
Next perio...		53	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6,152	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54					
September	50					
October	56	53,333	2,667	2,667	7,111	4,762%
November	47	53,556	-6,556	6,556	42,975	13,948%
December	49	52,556	-3,556	3,556	12,642	7,256%
TOTALS	632		-7,444	12,778	62,728	25,966%
AVERAGE	52,667		-2,481	4,259	20,909	8,655%
Next perio...		52,444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7,92	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54					
September	50					
October	56					
November	47	53,6	-6,6	6,6	43,56	14,043%
December	49	52,9	-3,9	3,9	15,21	7,959%
TOTALS	632		-10,5	10,5	58,77	22,002%
AVERAGE	52,667		-5,25	5,25	29,385	11,001%
Next perio...		52,2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30	29,5	,5	,5	,25	1,667%
April	35	31	4	4	16	11,429%
May	28	32,5	-4,5	4,5	20,25	16,071%
June	30	31,5	-1,5	1,5	2,25	5%
July	29	29	0	0	0	0%
August	35	29,5	5,5	5,5	30,25	15,714%
September	33	32	1	1	1	3,03%
October	30	34	-4	4	16	13,333%
November	32	31,5	,5	,5	,25	1,563%
December	29	31	-2	2	4	6,897%
TOTALS	370		-5	23,5	90,25	74,704%
AVERAGE	30,833		-0,5	2,35	9,025	7,47%
Next perio...		30,5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,359	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35	29,667	5,333	5,333	28,444	15,238%
May	28	32,333	-4,333	4,333	18,778	15,476%
June	30	31	-1	1	1	3,333%
July	29	31	-2	2	4	6,897%
August	35	29	6	6	36	17,143%
September	33	31,333	1,667	1,667	2,778	5,051%
October	30	32,333	-2,333	2,333	5,444	7,778%
November	32	32,667	-.667	,667	,444	2,083%
December	29	31,667	-2,667	2,667	7,111	9,195%
TOTALS	370		0	26	104	82,194%
AVERAGE	30,833		0	2,889	11,556	9,133%
Next perio...		30,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,854	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28	31	-3	3	9	10,714%
June	30	31,25	-1,25	1,25	1,563	4,167%
July	29	30,75	-1,75	1,75	3,063	6,034%
August	35	30,5	4,5	4,5	20,25	12,857%
September	33	30,5	2,5	2,5	6,25	7,576%
October	30	31,75	-1,75	1,75	3,063	5,833%
November	32	31,75	,25	,25	,063	,781%
December	29	32,5	-3,5	3,5	12,25	12,069%
TOTALS	370		-4	18,5	55,5	60,032%
AVERAGE	30,833		-5	2,313	6,938	7,504%
Next perio...		31	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,041	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30	30,4	-.4	,4	,16	1,333%
July	29	31	-2	2	4	6,897%
August	35	30,4	4,6	4,6	21,16	13,143%
September	33	31,4	1,6	1,6	2,56	4,848%
October	30	31	-1	1	1	3,333%
November	32	31,4	,6	,6	,36	1,875%
December	29	31,8	-2,8	2,8	7,84	9,655%
TOTALS	370		,6	13	37,08	41,085%
AVERAGE	30,833		,086	1,857	5,297	5,869%
Next perio...		31,8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,723	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29	30,333	-1,333	1,333	1,778	4,598%
August	35	30,667	4,333	4,333	18,778	12,381%
September	33	31,167	1,833	1,833	3,361	5,556%
October	30	31,667	-1,667	1,667	2,778	5,556%
November	32	30,833	1,167	1,167	1,361	3,646%
December	29	31,5	-2,5	2,5	6,25	8,621%
TOTALS	370		1,833	12,833	34,306	40,356%
AVERAGE	30,833		,306	2,139	5,718	6,726%
Next perio...		31,333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,929	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35	30,143	4,857	4,857	23,592	13,878%
September	33	31,286	1,714	1,714	2,939	5,195%
October	30	31,429	-1,429	1,429	2,041	4,762%
November	32	31,429	,571	,571	,327	1,786%
December	29	31	-2	2	4	6,897%
TOTALS	370		3,714	10,571	32,898	32,517%
AVERAGE	30,833		,743	2,114	6,58	6,503%
Next perio...		31,143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3,311	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35					
September	33	30,75	2,25	2,25	5,063	6,818%
October	30	31,5	-1,5	1,5	2,25	5%
November	32	31,25	,75	,75	,563	2,344%
December	29	31,5	-2,5	2,5	6,25	8,621%
TOTALS	370		-1	7	14,125	22,783%
AVERAGE	30,833		-.25	1,75	3,531	5,696%
Next perio...		30,75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,658	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35					
September	33					
October	30	31	-1	1	1	3,333%
November	32	31,333	,667	,667	,444	2,083%
December	29	31,333	-2,333	2,333	5,444	8,046%
TOTALS	370		-2,667	4	6,889	13,463%
AVERAGE	30,833		-.889	1,333	2,296	4,488%
Next perio...		31,222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,625	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35					
September	33					
October	30					
November	32	30,9	1,1	1,1	1,21	3,437%
December	29	31,4	-2,4	2,4	5,76	8,276%
TOTALS	370		-1,3	3,5	6,97	11,713%
AVERAGE	30,833		-.65	1,75	3,485	5,857%
Next perio...		31,1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28	26	2	2	4	7.143%
April	30	26	4	4	16	13.333%
May	31	29	2	2	4	6.452%
June	29	30.5	-1.5	1.5	2.25	5.172%
July	30	30	0	0	0	0%
August	29	29.5	-.5	.5	.25	1.724%
September	30	29.5	.5	.5	.25	1.667%
October	28	29.5	-1.5	1.5	2.25	5.357%
November	30	29	1	1	1	3.333%
December	29	29	0	0	0	0%
TOTALS	346		6	13	30	44.182%
AVERAGE	28.833		.6	1.3	3	4.418%
Next period forecast		29.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.936	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30	26.667	3.333	3.333	11.111	11.111%
May	31	27.333	3.667	3.667	13.444	11.828%
June	29	29.667	-.667	.667	.444	2.299%
July	30	30	0	0	0	0%
August	29	30	-1	1	1	3.448%
September	30	29.333	.667	.667	.444	2.222%
October	28	29.667	-1.667	1.667	2.778	5.952%
November	30	29	1	1	1	3.333%
December	29	29.333	-.333	.333	.111	1.149%
TOTALS	346		5	12.333	30.333	41.344%
AVERAGE	28.833		.556	1.37	3.37	4.594%
Next period forecast		29	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.082	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31	27.5	3.5	3.5	12.25	11.29%
June	29	28.25	.75	.75	.563	2.586%
July	30	29.5	.5	.5	.25	1.667%
August	29	30	-1	1	1	3.448%
September	30	29.75	.25	.25	.063	.833%
October	28	29.5	-1.5	1.5	2.25	5.357%
November	30	29.25	.75	.75	.563	2.5%
December	29	29.25	-.25	.25	.063	.862%
TOTALS	346		3	8.5	17	28.544%
AVERAGE	28.833		.375	1.063	2.125	3.568%
Next period forecast		29.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.683	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29	28.2	.8	.8	.64	2.759%
July	30	28.4	1.6	1.6	2.56	5.333%
August	29	29.6	-.6	.6	.36	2.069%
September	30	29.8	.2	.2	.04	.667%
October	28	29.8	-1.8	1.8	3.24	6.429%
November	30	29.2	.8	.8	.64	2.667%
December	29	29.4	-.4	.4	.16	1.379%
TOTALS	346		.6	6.2	7.64	21.302%
AVERAGE	28.833		.086	.886	1.091	3.043%
Next period forecast		29.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.236	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30	28.333	1.667	1.667	2.778	5.556%
August	29	28.667	.333	.333	.111	1.149%
September	30	29.5	.5	.5	.25	1.667%
October	28	29.833	-1.833	1.833	3.361	6.548%
November	30	29.5	.5	.5	.25	1.667%
December	29	29.333	-.333	.333	.111	1.149%
TOTALS	346		.833	5.167	6.861	17.735%
AVERAGE	28.833		.139	.861	1.144	2.956%
Next period forecast		29.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.31	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29	28.571	.429	.429	.184	1.478%
September	30	28.714	1.286	1.286	1.653	4.286%
October	28	29.571	-1.571	1.571	2.469	5.612%
November	30	29.571	.429	.429	.184	1.429%
December	29	29.571	-.571	.571	.327	1.97%
TOTALS	346		0	4.286	4.816	14.775%
AVERAGE	28.833		0	.857	.963	2.955%
Next period forecast		29.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.267	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29					
September	30	28.625	1.375	1.375	1.891	4.583%
October	28	28.875	-.875	.875	.766	3.125%
November	30	29.375	.625	.625	.391	2.083%
December	29	29.625	-.625	.625	.391	2.155%
TOTALS	346		.5	3.5	3.438	11.947%
AVERAGE	28.833		.125	.875	.859	2.987%
Next period forecast		29.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.311	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29					
September	30					
October	28	28.778	-.778	.778	.605	2.778%
November	30	28.778	1.222	1.222	1.494	4.074%
December	29	29.444	-.444	.444	.198	1.533%
TOTALS	346		0	2.444	2.296	8.384%
AVERAGE	28.833		0	.815	.765	2.795%
Next period forecast		29.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.515	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29					
September	30					
October	28					
November	30	28.7	1.3	1.3	1.69	4.333%
December	29	28.9	.1	.1	.01	.345%
TOTALS	346		1.4	1.4	1.7	4.678%
AVERAGE	28.833		.7	.7	.85	2.339%
Next period forecast		29.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19	21	-2	2	4	10.526%
April	25	20.5	4.5	4.5	20.25	18%
May	23	22	1	1	1	4.348%
June	20	24	-4	4	16	20%
July	26	21.5	4.5	4.5	20.25	17.308%
August	21	23	-2	2	4	9.524%
September	17	23.5	-6.5	6.5	42.25	38.235%
October	24	19	5	5	25	20.833%
November	20	20.5	-0.5	.5	.25	2.5%
December	21	22	-1	1	1	4.762%
TOTALS	258		-1	31	134	146.036%
AVERAGE	21.5		-1	3.1	13.4	14.604%
Next period forecast		20.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.093	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25	20.333	4.667	4.667	21.778	18.667%
May	23	22	1	1	1	4.348%
June	20	22.333	-2.333	2.333	5.444	11.667%
July	26	22.667	3.333	3.333	11.111	12.821%
August	21	23	-2	2	4	9.524%
September	17	22.333	-5.333	5.333	28.444	31.373%
October	24	21.333	2.667	2.667	7.111	11.111%
November	20	20.667	-0.667	.667	.444	3.333%
December	21	20.333	.667	.667	.444	3.175%
TOTALS	258		2	22.667	79.778	106.017%
AVERAGE	21.5		.222	2.519	8.864	11.78%
Next period forecast		21.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.376	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23	21.5	1.5	1.5	2.25	6.522%
June	20	22.25	-2.25	2.25	5.063	11.25%
July	26	21.75	4.25	4.25	18.063	16.346%
August	21	23.5	-2.5	2.5	6.25	11.905%
September	17	22.5	-5.5	5.5	30.25	32.353%
October	24	21	3	3	9	12.5%
November	20	22	-2	2	4	10%
December	21	20.5	.5	.5	.25	2.381%
TOTALS	258		-3	21.5	75.125	103.257%
AVERAGE	21.5		-0.375	2.688	9.391	12.907%
Next period forecast		20.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.538	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20	21.8	-1.8	1.8	3.24	9%
July	26	21.8	4.2	4.2	17.64	16.154%
August	21	22.6	-1.6	1.6	2.56	7.619%
September	17	23	-6	6	36	35.294%
October	24	21.4	2.6	2.6	6.76	10.833%
November	20	21.6	-1.6	1.6	2.56	8%
December	21	21.6	-0.6	.6	.36	2.857%
TOTALS	258		-4.8	18.4	69.12	89.758%
AVERAGE	21.5		-0.686	2.629	9.874	12.823%
Next period forecast		20.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.718	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26	21.5	4.5	4.5	20.25	17.308%
August	21	22.5	-1.5	1.5	2.25	7.143%
September	17	22.333	-5.333	5.333	28.444	31.373%
October	24	22	2	2	4	8.333%
November	20	21.833	-1.833	1.833	3.361	9.167%
December	21	21.333	-0.333	.333	.111	1.587%
TOTALS	258		-2.5	15.5	58.417	74.91%
AVERAGE	21.5		-0.417	2.583	9.736	12.485%
Next period forecast		21.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.822	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21	22.143	-1.143	1.143	1.306	5.442%
September	17	22.286	-5.286	5.286	27.939	31.092%
October	24	21.571	2.429	2.429	5.898	10.119%
November	20	22.286	-2.286	2.286	5.224	11.429%
December	21	21.571	-0.571	.571	.327	2.721%
TOTALS	258		-6.857	11.714	40.694	60.803%
AVERAGE	21.5		-1.371	2.343	8.139	12.161%
Next period forecast		21.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.683	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21					
September	17	22	-5	5	25	29.412%
October	24	21.625	2.375	2.375	5.641	9.896%
November	20	21.875	-1.875	1.875	3.516	9.375%
December	21	22	-1	1	1	4.762%
TOTALS	258		-5.5	10.25	35.156	53.445%
AVERAGE	21.5		-1.375	2.563	8.789	13.361%
Next period forecast		21.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.193	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21					
September	17					
October	24	21.444	2.556	2.556	6.531	10.648%
November	20	21.889	-1.889	1.889	3.568	9.444%
December	21	21.667	-0.667	.667	.444	3.175%
TOTALS	258		0	5.111	10.543	23.267%
AVERAGE	21.5		0	1.704	3.514	7.756%
Next period forecast		21.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.247	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21					
September	17					
October	24					
November	20	21.7	-1.7	1.7	2.89	8.5%
December	21	21.7	-0.7	.7	.49	3.333%
TOTALS	258		-2.4	2.4	3.38	11.833%
AVERAGE	21.5		-1.2	1.2	1.69	5.917%
Next period forecast		21.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbahayak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13	13.5	-5	.5	.25	3.846%
April	14	14	0	0	0	0%
May	13	13.5	-5	.5	.25	3.846%
June	15	13.5	1.5	1.5	2.25	10%
July	13	14	-1	1	1	7.692%
August	12	14	-2	2	4	16.667%
September	13	12.5	.5	.5	.25	3.846%
October	12	12.5	-.5	.5	.25	4.167%
November	14	12.5	1.5	1.5	2.25	10.714%
December	15	13	2	2	4	13.333%
TOTALS	161		1	10	14.5	74.112%
AVERAGE	13.417		.1	1	1.45	7.411%
Next period forecast		14.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.346	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14	13.333	.667	.667	.444	4.762%
May	13	14	-1	1	1	7.692%
June	15	13.333	1.667	1.667	2.778	11.111%
July	13	14	-1	1	1	7.692%
August	12	13.667	-1.667	1.667	2.778	13.889%
September	13	13.333	-.333	.333	.111	2.564%
October	12	12.667	-.667	.667	.444	5.556%
November	14	12.333	1.667	1.667	2.778	11.905%
December	15	13	2	2	4	13.333%
TOTALS	161		1.333	10.667	15.333	78.504%
AVERAGE	13.417		1.48	1.185	1.704	8.723%
Next period forecast		13.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.48	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13	13.5	-5	.5	.25	3.846%
June	15	13.75	1.25	1.25	1.563	8.333%
July	13	13.75	-.75	.75	.563	5.769%
August	12	13.75	-1.75	1.75	3.063	14.583%
September	13	13.25	-.25	.25	.063	1.923%
October	12	13.25	-1.25	1.25	1.563	10.417%
November	14	12.5	1.5	1.5	2.25	10.714%
December	15	12.75	2.25	2.25	5.063	15%
TOTALS	161		.5	9.5	14.375	70.586%
AVERAGE	13.417		.063	1.188	1.797	8.823%
Next period forecast		13.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.548	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13					
June	15	13.4	1.6	1.6	2.56	10.667%
July	13	14	-1	1	1	7.692%
August	12	13.6	-1.6	1.6	2.56	13.333%
September	13	13.4	-.4	.4	.16	3.077%
October	12	13.2	-1.2	1.2	1.44	10%
November	14	13	1	1	1	7.143%
December	15	12.8	2.2	2.2	4.84	14.667%
TOTALS	161		.6	9	13.56	66.579%
AVERAGE	13.417		.086	1.286	1.937	9.511%
Next period forecast		13.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.647	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13					
June	15					
July	13	13.667	-.667	.667	.444	5.128%
August	12	13.833	-1.833	1.833	3.361	15.278%
September	13	13.333	-.333	.333	.111	2.564%
October	12	13.333	-1.333	1.333	1.778	11.111%
November	14	13	1	1	1	7.143%
December	15	13.167	1.833	1.833	3.361	12.222%
TOTALS	161		-1.333	7	10.056	53.446%
AVERAGE	13.417		-.222	1.167	1.676	8.908%
Next period forecast		13.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.586	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13					
June	15					
July	13					
August	12	13.571	-1.571	1.571	2.469	13.095%
September	13	13.571	-.571	.571	.327	4.396%
October	12	13.286	-1.286	1.286	1.653	10.714%
November	14	13.143	.857	.857	.735	6.122%
December	15	13.143	1.857	1.857	3.449	12.381%
TOTALS	161		-.714	6.143	8.633	46.709%
AVERAGE	13.417		-.143	1.229	1.727	9.342%
Next period forecast		13.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.696	

Periode 8

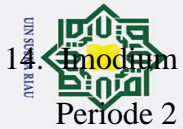
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13					
June	15					
July	13					
August	12					
September	13	13.375	-.375	.375	.141	2.885%
October	12	13.5	-1.5	1.5	2.25	12.5%
November	14	13.125	.875	.875	.766	6.25%
December	15	13.25	1.75	1.75	3.063	11.667%
TOTALS	161		.75	4.5	6.219	33.301%
AVERAGE	13.417		.188	1.125	1.555	8.325%
Next period forecast		13.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.763	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13					
June	15					
July	13					
August	12					
September	13					
October	12	13.333	-1.333	1.333	1.778	11.111%
November	14	13.333	.667	.667	.444	4.762%
December	15	13.222	1.778	1.778	3.16	11.852%
TOTALS	161		1.111	3.778	5.383	27.725%
AVERAGE	13.417		.37	1.259	1.794	9.242%
Next period forecast		13.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.32	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15					
March	13					
April	14					
May	13					
June	15					
July	13					
August	12					
September	13					
October	12					
November	14	13.2	.8	.8	.64	5.714%
December	15	13.4	1.6	1.6	2.56	10.667%
TOTALS	161		2.4	2.4	3.2	16.381%
AVERAGE	13.417		1.2	1.2	1.6	8.19%
Next period forecast		13.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarahkan mengemukakan dan memperbahyuk sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4	3.5	.5	.5	.25	12.5%
April	7	4.5	2.5	2.5	6.25	35.714%
May	2	5.5	-3.5	3.5	12.25	175%
June	1	4.5	-3.5	3.5	12.25	350%
July	3	1.5	1.5	1.5	2.25	50%
August	6	2	4	4	16	66.667%
September	9	4.5	4.5	4.5	20.25	50%
October	4	7.5	-3.5	3.5	12.25	87.5%
November	3	6.5	-3.5	3.5	12.25	116.667%
December	2	3.5	-1.5	1.5	2.25	75%
TOTALS	48		-2.5	28.5	96.25	1019.048%
AVERAGE	4		-25	2.85	9.625	101.905%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.469	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7	3.667	3.333	3.333	11.111	47.619%
May	2	5.333	-3.333	3.333	11.111	166.667%
June	1	4.333	-3.333	3.333	11.111	333.333%
July	3	3.333	-.333	.333	.111	11.111%
August	6	2	4	4	16	66.667%
September	9	3.333	5.667	5.667	32.111	62.963%
October	4	6	-2	2	4	50%
November	3	6.333	-3.333	3.333	11.111	111.111%
December	2	5.333	-3.333	3.333	11.111	166.667%
TOTALS	48		-2.667	28.667	107.778	1016.138%
AVERAGE	4		-.296	3.185	11.975	112.904%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.924	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2	4.5	-2.5	2.5	6.25	125%
June	1	4.5	-3.5	3.5	12.25	350%
July	3	3.5	-.5	.5	.25	16.667%
August	6	3.25	2.75	2.75	7.563	45.833%
September	9	3	6	6	36	66.667%
October	4	4.75	-.75	.75	.563	18.75%
November	3	5.5	-2.5	2.5	6.25	83.333%
December	2	5.5	-3.5	3.5	12.25	175%
TOTALS	48		-4.5	22	81.375	881.25%
AVERAGE	4		-.563	2.75	10.172	110.156%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.683	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1	4	-3	3	9	300%
July	3	3.8	-.8	.8	.64	26.667%
August	6	3.4	2.6	2.6	6.76	43.333%
September	9	3.8	5.2	5.2	27.04	57.778%
October	4	4.2	-.2	.2	.04	5%
November	3	4.6	-1.6	1.6	2.56	53.333%
December	2	5	-3	3	9	150%
TOTALS	48		-.8	16.4	55.04	636.111%
AVERAGE	4		-.114	2.343	7.863	90.873%
Next period forecast		4.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.318	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3	3.5	-.5	.5	.25	16.667%
August	6	3.667	2.333	2.333	5.444	38.889%
September	9	3.833	5.167	5.167	26.694	57.407%
October	4	4.667	-.667	.667	.444	16.667%
November	3	4.167	-1.167	1.167	1.361	38.889%
December	2	4.333	-2.333	2.333	5.444	116.667%
TOTALS	48		2.833	12.167	39.639	285.185%
AVERAGE	4		.472	2.028	6.606	47.531%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.148	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6	3.429	2.571	2.571	6.612	42.857%
September	9	4	5	5	25	55.556%
October	4	4.571	-.571	.571	.327	14.286%
November	3	4.571	-1.571	1.571	2.469	52.381%
December	2	4	-2	2	4	100%
TOTALS	48		3.429	11.714	38.408	265.079%
AVERAGE	4		.686	2.343	7.682	53.016%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.578	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6					
September	9	3.75	5.25	5.25	27.563	58.333%
October	4	4.625	-.625	.625	.391	15.625%
November	3	4.5	-1.5	1.5	2.25	50%
December	2	4.375	-2.375	2.375	5.641	118.75%
TOTALS	48		.75	9.75	35.844	242.708%
AVERAGE	4		.188	2.438	8.961	60.677%
Next period forecast		3.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.233	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6					
September	9					
October	4	4.333	-.333	.333	.111	8.333%
November	3	4.556	-1.556	1.556	2.42	51.852%
December	2	4.333	-2.333	2.333	5.444	116.667%
TOTALS	48		-4.222	4.222	7.975	176.852%
AVERAGE	4		-1.407	1.407	2.658	58.951%
Next period forecast		4.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.824	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6					
September	9					
October	4					
November	3	4.3	-1.3	1.3	1.69	43.333%
December	2	4.4	-2.4	2.4	5.76	120%
TOTALS	48		-3.7	3.7	7.45	163.333%
AVERAGE	4		-1.85	1.85	3.725	81.667%
Next period forecast		4.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Sunan Kalijaga.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3	3	0	0	0	0%
April	4	3.5	.5	.5	.25	12.5%
May	3	3.5	-.5	.5	.25	16.667%
June	6	3.5	2.5	2.5	6.25	41.667%
July	5	4.5	.5	.5	.25	10%
August	3	5.5	-2.5	2.5	6.25	83.333%
September	4	4	0	0	0	0%
October	6	3.5	2.5	2.5	6.25	41.667%
November	7	5	2	2	4	28.571%
December	3	6.5	-3.5	3.5	12.25	116.667%
TOTALS	50		1.5	14.5	35.75	351.071%
AVERAGE	4.167		.15	1.45	3.575	35.107%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.114	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6	3.2	2.8	2.8	7.84	46.667%
July	5	4	1	1	1	20%
August	3	4.2	-1.2	1.2	1.44	40%
September	4	4.2	-.2	.2	.04	5%
October	6	4.2	1.8	1.8	3.24	30%
November	7	4.8	2.2	2.2	4.84	31.429%
December	3	5	-2	2	4	66.667%
TOTALS	50		4.4	11.2	22.4	239.762%
AVERAGE	4.167		.629	1.6	3.2	34.252%
Next period forecast		4.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.117	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3					
September	4	3.75	.25	.25	.063	6.25%
October	6	4	2	2	4	33.333%
November	7	4.25	2.75	2.75	7.563	39.286%
December	3	4.75	-1.75	1.75	3.063	58.333%
TOTALS	50		3.25	6.75	14.688	137.202%
AVERAGE	4.167		.813	1.688	3.672	34.301%
Next period forecast		4.625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.71	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4	3	1	1	1	25%
May	3	3.667	-.667	.667	.444	22.222%
June	6	3.333	2.667	2.667	7.111	44.444%
July	5	4.333	.667	.667	.444	13.333%
August	3	4.667	-1.667	1.667	2.778	55.556%
September	4	4.667	-.667	.667	.444	16.667%
October	6	4	2	2	4	33.333%
November	7	4.333	2.667	2.667	7.111	38.095%
December	3	5.667	-2.667	2.667	7.111	88.889%
TOTALS	50		3.333	14.667	30.444	337.54%
AVERAGE	4.167		.37	1.63	3.383	37.504%
Next period forecast		5.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.085	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5	3.667	1.333	1.333	1.778	26.667%
August	3	4.167	-1.167	1.167	1.361	38.889%
September	4	4	0	0	0	0%
October	6	4.167	1.833	1.833	3.361	30.556%
November	7	4.5	2.5	2.5	6.25	35.714%
December	3	5.167	-2.167	2.167	4.694	72.222%
TOTALS	50		2.333	9	17.444	204.048%
AVERAGE	4.167		.389	1.5	2.907	34.008%
Next period forecast		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.088	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3					
September	4					
October	6	3.778	2.222	2.222	4.938	37.037%
November	7	4.222	2.778	2.778	7.716	39.683%
December	3	4.556	-1.556	1.556	2.42	51.852%
TOTALS	50		3.444	6.556	15.074	128.571%
AVERAGE	4.167		1.148	2.185	5.025	42.857%
Next period forecast		4.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.883	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3	3.25	-.25	.25	.063	8.333%
June	6	3.5	2.5	2.5	6.25	41.667%
July	5	4	1	1	1	20%
August	3	4.5	-1.5	1.5	2.25	50%
September	4	4.25	-.25	.25	.063	6.25%
October	6	4.5	1.5	1.5	2.25	25%
November	7	4.5	2.5	2.5	6.25	35.714%
December	3	5	-2	2	4	66.667%
TOTALS	50		3.5	11.5	22.125	253.631%
AVERAGE	4.167		.438	1.438	2.766	31.704%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.92	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3	3.857	-.857	.857	.735	28.571%
September	4	4	0	0	0	0%
October	6	4	2	2	4	33.333%
November	7	4.429	2.571	2.571	6.612	36.735%
December	3	4.857	-1.857	1.857	3.449	61.905%
TOTALS	50		1.857	7.286	14.796	160.544%
AVERAGE	4.167		.371	1.457	2.959	32.109%
Next period forecast		4.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.221	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3					
September	4					
October	6					
November	7	4	3	3	9	42.857%
December	3	4.5	-1.5	1.5	2.25	50%
TOTALS	50		1.5	4.5	11.25	92.857%
AVERAGE	4.167		.75	2.25	5.625	46.429%
Next period forecast		4.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suske Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8	5.5	2.5	2.5	6.25	31.25%
April	5	6.5	-1.5	1.5	2.25	30%
May	8	6.5	1.5	1.5	2.25	18.75%
June	10	6.5	3.5	3.5	12.25	35%
July	4	9	-5	5	25	125%
August	6	7	-1	1	1	16.667%
September	7	5	2	2	4	28.571%
October	8	6.5	1.5	1.5	2.25	18.75%
November	9	7.5	1.5	1.5	2.25	16.667%
December	6	8.5	-2.5	2.5	6.25	41.667%
TOTALS	82		2.5	22.5	63.75	362.322%
AVERAGE	6.833		25	2.25	6.375	36.232%
Next period forecast		7.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.823	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5	6.333	-1.333	1.333	1.778	26.667%
May	8	6	2	2	4	25%
June	10	7	3	3	9	30%
July	4	7.667	-3.667	3.667	13.444	91.667%
August	6	7.333	-1.333	1.333	1.778	22.222%
September	7	6.667	.333	.333	.111	4.762%
October	8	5.667	2.333	2.333	5.444	29.167%
November	9	7	2	2	4	22.222%
December	6	8	-2	2	4	33.333%
TOTALS	82		1.333	18	43.556	285.04%
AVERAGE	6.833		.148	2	4.84	31.671%
Next period forecast		7.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.494	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8	6	2	2	4	25%
June	10	6.5	3.5	3.5	12.25	35%
July	4	7.75	-3.75	3.75	14.063	93.75%
August	6	6.75	-.75	.75	.563	12.5%
September	7	7	0	0	0	0%
October	8	6.75	1.25	1.25	1.563	15.625%
November	9	6.25	2.75	2.75	7.563	30.556%
December	6	7.5	-1.5	1.5	2.25	25%
TOTALS	82		3.5	15.5	42.25	237.431%
AVERAGE	6.833		.438	1.938	5.281	29.679%
Next period forecast		7.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.654	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10	6.4	3.6	3.6	12.96	36%
July	4	7.2	-3.2	3.2	10.24	80%
August	6	7	-1	1	1	16.667%
September	7	6.6	.4	.4	.16	5.714%
October	8	7	1	1	1	12.5%
November	9	7	2	2	4	22.222%
December	6	6.8	-.8	.8	.64	13.333%
TOTALS	82		2	12	30	186.437%
AVERAGE	6.833		.286	1.714	4.286	26.634%
Next period forecast		7.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.449	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4	7	-3	3	9	75%
August	6	6.667	-.667	.667	.444	11.111%
September	7	6.833	.167	.167	.028	2.381%
October	8	6.667	1.333	1.333	1.778	16.667%
November	9	7.167	1.833	1.833	3.361	20.37%
December	6	7.333	-1.333	1.333	1.778	22.222%
TOTALS	82		-1.667	8.333	16.389	147.751%
AVERAGE	6.833		-.278	1.389	2.731	24.625%
Next period forecast		6.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.024	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6	6.571	-.571	.571	.327	9.524%
September	7	6.571	.429	.429	.184	6.122%
October	8	6.857	1.143	1.143	1.306	14.286%
November	9	6.857	2.143	2.143	4.592	23.81%
December	6	7.429	-1.429	1.429	2.041	23.81%
TOTALS	82		1.714	5.714	8.449	77.551%
AVERAGE	6.833		.343	1.143	1.69	15.51%
Next period forecast		7.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.678	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6					
September	7	6.5	.5	.5	.25	7.143%
October	8	6.625	1.375	1.375	1.891	17.188%
November	9	7	2	2	4	22.222%
December	6	7.125	-1.125	1.125	1.266	18.75%
TOTALS	82		2.75	5	7.406	65.303%
AVERAGE	6.833		.688	1.25	1.852	16.326%
Next period forecast		7.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.924	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6					
September	7					
October	8	6.556	1.444	1.444	2.086	18.056%
November	9	6.778	2.222	2.222	4.938	24.691%
December	6	7.222	-1.222	1.222	1.494	20.37%
TOTALS	82		2.444	4.889	8.519	63.117%
AVERAGE	6.833		.815	1.63	2.84	21.039%
Next period forecast		7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.919	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6					
September	7					
October	8					
November	9	6.7	2.3	2.3	5.29	25.556%
December	6	7	-1	1	1	16.667%
TOTALS	82		1.3	3.3	6.29	42.222%
AVERAGE	6.833		.65	1.65	3.145	21.111%
Next period forecast		7.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45	42	3	3	9	6.667%
April	42	42.5	-5	5	25	1.19%
May	44	43.5	.5	.5	.25	1.136%
June	50	43	7	7	49	14%
July	48	47	1	1	1	2.083%
August	39	49	-10	10	100	25.641%
September	40	43.5	-3.5	3.5	12.25	8.75%
October	43	39.5	3.5	3.5	12.25	8.14%
November	46	41.5	4.5	4.5	20.25	9.783%
December	44	44.5	-5	5	25	1.136%
TOTALS	525		5	34	204.5	78.526%
AVERAGE	43.75		5	3.4	20.45	7.853%
Next period forecast		45	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.056	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42	43	-1	1	1	2.381%
May	44	42.333	1.667	1.667	2.778	3.788%
June	50	43.667	6.333	6.333	40.111	12.667%
July	48	45.333	2.667	2.667	7.111	5.556%
August	39	47.333	-8.333	8.333	69.444	21.368%
September	40	45.667	-5.667	5.667	32.111	14.167%
October	43	42.333	.667	.667	.444	1.55%
November	46	40.667	5.333	5.333	28.444	11.594%
December	44	43	1	1	1	2.273%
TOTALS	525		2.667	32.667	182.445	75.343%
AVERAGE	43.75		296	3.63	20.272	8.371%
Next period forecast		44.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.105	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44	42.75	1.25	1.25	1.563	2.841%
June	50	42.75	7.25	7.25	52.563	14.5%
July	48	45.25	2.75	2.75	7.563	5.729%
August	39	46	-7	7	49	17.949%
September	40	45.25	-5.25	5.25	27.563	13.125%
October	43	44.25	-1.25	1.25	1.563	2.907%
November	46	42.5	3.5	3.5	12.25	7.609%
December	44	42	2	2	4	4.545%
TOTALS	525		3.25	30.25	156.063	69.205%
AVERAGE	43.75		406	3.781	19.508	8.651%
Next period forecast		43.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.1	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50	43	7	7	49	14%
July	48	44.2	3.8	3.8	14.44	7.917%
August	39	45.8	-6.8	6.8	46.24	17.436%
September	40	44.6	-4.6	4.6	21.16	11.5%
October	43	44.2	-1.2	1.2	1.44	2.791%
November	46	44	2	2	4	4.348%
December	44	43.2	.8	.8	.64	1.818%
TOTALS	525		1	26.2	136.92	59.809%
AVERAGE	43.75		.143	3.743	19.56	8.544%
Next period forecast		42.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.233	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48	44.167	3.833	3.833	14.694	7.986%
August	39	44.833	-5.833	5.833	34.028	14.957%
September	40	44.667	-4.667	4.667	21.778	11.667%
October	43	43.833	-.833	.833	.694	1.938%
November	46	44	2	2	4	4.348%
December	44	44.333	-.333	.333	.111	.758%
TOTALS	525		-5.833	17.5	75.306	41.653%
AVERAGE	43.75		-972	2.917	12.551	6.942%
Next period forecast		43.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.339	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39	44.714	-5.714	5.714	32.653	14.652%
September	40	44	-4	4	16	10%
October	43	44	-1	1	1	2.326%
November	46	43.714	2.286	2.286	5.224	4.969%
December	44	44.286	-.286	.286	.082	.649%
TOTALS	525		-8.714	13.286	54.959	32.596%
AVERAGE	43.75		-1.743	2.657	10.992	6.519%
Next period forecast		44.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.28	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39					
September	40	44	-4	4	16	10%
October	43	43.5	-.5	.5	.25	1.163%
November	46	43.875	2.125	2.125	4.516	4.62%
December	44	44	0	0	0	0%
TOTALS	525		-2.375	6.625	20.766	15.782%
AVERAGE	43.75		-.594	1.656	5.191	3.946%
Next period forecast		44.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.222	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39					
September	40					
October	43	43.556	-.556	.556	.309	1.292%
November	46	43.444	2.556	2.556	6.531	5.556%
December	44	44.111	-.111	.111	.012	.253%
TOTALS	525		1.889	3.222	6.852	7.1%
AVERAGE	43.75		.63	1.074	2.284	2.367%
Next period forecast		44	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.618	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39					
September	40					
October	43					
November	46	43.5	2.5	2.5	6.25	5.435%
December	44	43.7	.3	.3	.09	.682%
TOTALS	525		2.8	2.8	6.34	6.117%
AVERAGE	43.75		1.4	1.4	3.17	3.058%
Next period forecast		44.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



2. Diarangi mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9	10	-1	1	1	11.111%
April	10	10	0	0	0	0%
May	8	9.5	-1.5	1.5	2.25	18.75%
June	9	9	0	0	0	0%
July	10	8.5	1.5	1.5	2.25	15%
August	12	9.5	2.5	2.5	6.25	20.833%
September	9	11	-2	2	4	22.222%
October	8	10.5	-2.5	2.5	6.25	31.25%
November	6	8.5	-2.5	2.5	6.25	41.667%
December	9	7	2	2	4	22.222%
TOTALS	110		-3.5	15.5	32.25	183.056%
AVERAGE	9.167		-35	1.55	3.225	18.306%
Next period forecast		7.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.008	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10	9.667	.333	.333	.111	3.333%
May	8	10	-2	2	4	25%
June	9	9	0	0	0	0%
July	10	9	1	1	1	10%
August	12	9	3	3	9	25%
September	9	10.333	-1.333	1.333	1.778	14.815%
October	8	10.333	-2.333	2.333	5.444	29.167%
November	6	9.667	-3.667	3.667	13.444	61.111%
December	9	7.667	1.333	1.333	1.778	14.815%
TOTALS	110		-3.667	15	36.556	183.241%
AVERAGE	9.167		-4.07	1.667	4.062	20.36%
Next period forecast		7.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.285	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8	9.75	-1.75	1.75	3.063	21.875%
June	9	9.5	-.5	.5	.25	5.556%
July	10	9	1	1	1	10%
August	12	9.25	2.75	2.75	7.563	22.917%
September	9	9.75	-.75	.75	.563	8.333%
October	8	10	-2	2	4	25%
November	6	9.75	-3.75	3.75	14.063	62.5%
December	9	8.75	.25	.25	.063	2.778%
TOTALS	110		-4.75	12.75	30.563	158.958%
AVERAGE	9.167		-5.94	1.594	3.82	19.87%
Next period forecast		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.257	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9	9.4	-.4	.4	.16	4.444%
July	10	9.4	.6	.6	.36	6%
August	12	9.2	2.8	2.8	7.84	23.333%
September	9	9.8	-.8	.8	.64	8.889%
October	8	9.6	-1.6	1.6	2.56	20%
November	6	9.6	-3.6	3.6	12.96	60%
December	9	9	0	0	0	0%
TOTALS	110		-3	9.8	24.52	122.667%
AVERAGE	9.167		-4.29	1.4	3.503	17.524%
Next period forecast		8.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.214	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10	9.333	.667	.667	.444	6.667%
August	12	9.5	2.5	2.5	6.25	20.833%
September	9	9.667	-.667	.667	.444	7.407%
October	8	9.667	-1.667	1.667	2.778	20.833%
November	6	9.333	-3.333	3.333	11.111	55.556%
December	9	9	0	0	0	0%
TOTALS	110		-2.5	8.833	21.028	111.296%
AVERAGE	9.167		-4.17	1.472	3.505	18.549%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.293	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12	9.429	2.571	2.571	6.612	21.429%
September	9	9.857	-.857	.857	.735	9.524%
October	8	9.571	-1.571	1.571	2.469	19.643%
November	6	9.429	-3.429	3.429	11.755	57.143%
December	9	8.857	.143	.143	.02	1.587%
TOTALS	110		-3.143	8.571	21.592	109.325%
AVERAGE	9.167		-6.29	1.714	4.318	21.865%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.683	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12					
September	9	9.75	-.75	.75	.563	8.333%
October	8	9.75	-1.75	1.75	3.063	21.875%
November	6	9.375	-3.375	3.375	11.391	56.25%
December	9	9	0	0	0	0%
TOTALS	110		-5.875	5.875	15.016	86.458%
AVERAGE	9.167		-1.469	1.469	3.754	21.615%
Next period forecast		8.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.74	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12					
September	9					
October	8	9.667	-1.667	1.667	2.778	20.833%
November	6	9.556	-3.556	3.556	12.642	59.259%
December	9	9	0	0	0	0%
TOTALS	110		-5.222	5.222	15.42	80.093%
AVERAGE	9.167		-1.741	1.741	5.14	26.698%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.927	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12					
September	9					
October	8					
November	6	9.5	-3.5	3.5	12.25	58.333%
December	9	9.2	-.2	.2	.04	2.222%
TOTALS	110		-3.7	3.7	12.29	60.556%
AVERAGE	9.167		-1.85	1.85	6.145	30.278%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1	2.5	-1.5	1.5	2.25	150%
April	1	2	-1	1	1	100%
May	3	1	2	2	4	66.667%
June	6	2	4	4	16	66.667%
July	5	4.5	.5	.5	.25	10%
August	3	5.5	-2.5	2.5	6.25	83.333%
September	2	4	-2	2	4	100%
October	5	2.5	2.5	2.5	6.25	50%
November	7	3.5	3.5	3.5	12.25	50%
December	10	6	4	4	16	40%
TOTALS	48		9.5	23.5	68.25	716.667%
AVERAGE	4		.95	2.35	6.825	71.667%
Next period forecast		8.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.921	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1	2	-1	1	1	100%
May	3	1.667	1.333	1.333	1.778	44.444%
June	6	1.667	4.333	4.333	18.778	72.222%
July	5	3.333	1.667	1.667	2.778	33.333%
August	3	4.667	-1.667	1.667	2.778	55.566%
September	2	4.667	-2.667	2.667	7.111	133.333%
October	5	3.333	1.667	1.667	2.778	33.333%
November	7	3.333	3.667	3.667	13.444	52.381%
December	10	4.667	5.333	5.333	28.444	53.333%
TOTALS	48		12.667	23.333	78.889	577.937%
AVERAGE	4		1.407	2.593	8.765	64.215%
Next period forecast		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.357	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3	1.75	1.25	1.25	1.563	41.667%
June	6	2	4	4	16	66.667%
July	5	2.75	2.25	2.25	5.063	45%
August	3	3.75	-.75	.75	.563	25%
September	2	4.25	-2.25	2.25	5.063	112.5%
October	5	4	1	1	1	20%
November	7	3.75	3.25	3.25	10.563	46.429%
December	10	4.25	5.75	5.75	33.063	57.5%
TOTALS	48		14.5	20.5	72.875	414.762%
AVERAGE	4		1.813	2.563	9.109	51.845%
Next period forecast		6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.485	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6	2	4	4	16	66.667%
July	5	2.8	2.2	2.2	4.84	44%
August	3	3.2	-2	2	.04	6.667%
September	2	3.6	-1.6	1.6	2.56	80%
October	5	3.8	1.2	1.2	1.44	24%
November	7	4.2	2.8	2.8	7.84	40%
December	10	4.4	5.6	5.6	31.36	56%
TOTALS	48		14	17.6	64.08	317.333%
AVERAGE	4		2	2.514	9.154	45.333%
Next period forecast		5.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.58	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5	2.667	2.333	2.333	5.444	46.667%
August	3	3.167	-.167	.167	.028	5.566%
September	2	3.167	-1.167	1.167	1.361	58.333%
October	5	3.333	1.667	1.667	2.778	33.333%
November	7	4	3	3	9	42.857%
December	10	4.667	5.333	5.333	28.444	53.333%
TOTALS	48		11	13.667	47.056	240.079%
AVERAGE	4		1.833	2.278	7.843	40.013%
Next period forecast		5.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.43	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3	3	0	0	0	0%
September	2	3.143	-1.143	1.143	1.306	57.143%
October	5	3	2	2	4	40%
November	7	3.571	3.429	3.429	11.755	48.98%
December	10	4.429	5.571	5.571	31.041	55.714%
TOTALS	48		9.857	12.143	48.102	201.837%
AVERAGE	4		1.971	2.429	9.62	40.367%
Next period forecast		5.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.004	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3					
September	2	3	-1	1	1	50%
October	5	3	2	2	4	40%
November	7	3.25	3.75	3.75	14.063	53.571%
December	10	4	6	6	36	60%
TOTALS	48		10.75	12.75	55.063	203.571%
AVERAGE	4		2.688	3.188	13.766	50.893%
Next period forecast		5.125	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.247	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3					
September	2					
October	5	2.889	2.111	2.111	4.457	42.222%
November	7	3.222	3.778	3.778	14.272	53.968%
December	10	3.667	6.333	6.333	40.111	63.333%
TOTALS	48		12.222	12.222	58.84	159.524%
AVERAGE	4		4.074	4.074	19.613	53.175%
Next period forecast		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.671	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3					
September	2					
October	5					
November	7	3.1	3.9	3.9	15.21	55.714%
December	10	3.6	6.4	6.4	40.96	64%
TOTALS	48		10.3	10.3	56.17	119.714%
AVERAGE	4		5.15	5.15	28.085	59.857%
Next period forecast		4.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

Table for Periode 2 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 5

Table for Periode 5 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 8

Table for Periode 8 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 3

Table for Periode 3 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 6

Table for Periode 6 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 9

Table for Periode 9 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 4

Table for Periode 4 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 7

Table for Periode 7 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

Periode 10

Table for Periode 10 showing demand, forecast, error, and various error metrics from January to December, including totals, averages, and next period forecast.

2. Diarangkan mengemukakan dan memperbahayak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Sun Suka Riau.

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Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25	25	0	0	0	0%
April	20	24.5	-4.5	4.5	20.25	22.5%
May	26	22.5	3.5	3.5	12.25	13.462%
June	27	23	4	4	16	14.815%
July	26	26.5	-0.5	0.5	0.25	1.923%
August	25	26.5	-1.5	1.5	2.25	6%
September	20	25.5	-5.5	5.5	30.25	27.5%
October	23	22.5	0.5	0.5	0.25	2.174%
November	24	21.5	2.5	2.5	6.25	10.417%
December	26	23.5	2.5	2.5	6.25	9.615%
TOTALS	292		1	25	94	108.405%
AVERAGE	24.333		1	2.5	9.4	10.841%
Next period forecast		25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.428	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20	25	-5	5	25	25%
May	26	23	3	3	9	11.538%
June	27	23.667	3.333	3.333	11.111	12.346%
July	26	24.333	1.667	1.667	2.778	6.41%
August	25	26.333	-1.333	1.333	1.778	5.333%
September	20	26	-6	6	36	30%
October	23	23.667	-0.667	0.667	0.444	2.899%
November	24	22.667	1.333	1.333	1.778	5.556%
December	26	22.333	3.667	3.667	13.444	14.103%
TOTALS	292		0	26	101.333	113.184%
AVERAGE	24.333		0	2.889	11.259	12.576%
Next period forecast		24.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.805	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26	23.75	2.25	2.25	5.063	8.654%
June	27	23.75	3.25	3.25	10.563	12.037%
July	26	24.5	1.5	1.5	2.25	5.769%
August	25	24.75	0.25	0.25	0.063	1%
September	20	26	-6	6	36	30%
October	23	24.5	-1.5	1.5	2.25	6.522%
November	24	23.5	0.5	0.5	0.25	2.083%
December	26	23	3	3	9	11.538%
TOTALS	292		3.25	18.25	65.438	77.604%
AVERAGE	24.333		0.406	2.281	8.18	9.7%
Next period forecast		23.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.302	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26					
June	27	24.2	2.8	2.8	7.84	10.37%
July	26	24.4	1.6	1.6	2.56	6.154%
August	25	24.8	0.2	0.2	0.04	0.8%
September	20	24.8	-4.8	4.8	23.04	24%
October	23	24.8	-1.8	1.8	3.24	7.826%
November	24	24.2	-0.2	0.2	0.04	0.833%
December	26	23.6	2.4	2.4	5.76	9.231%
TOTALS	292		2	13.8	42.52	59.214%
AVERAGE	24.333		0.029	1.971	6.074	8.459%
Next period forecast		23.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.916	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26					
June	27					
July	26	24.667	1.333	1.333	1.778	5.128%
August	25	24.667	0.333	0.333	0.111	1.333%
September	20	24.833	-4.833	4.833	23.361	24.167%
October	23	24	-1	1	1	4.348%
November	24	24.5	-0.5	0.5	0.25	2.083%
December	26	24.167	1.833	1.833	3.361	7.051%
TOTALS	292		-2.833	9.833	29.861	44.111%
AVERAGE	24.333		-0.472	1.639	4.977	7.352%
Next period forecast		24	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.732	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26					
June	27					
July	26					
August	25	24.857	0.143	0.143	0.02	0.571%
September	20	24.714	-4.714	4.714	22.224	23.571%
October	23	24.143	-1.143	1.143	1.306	4.969%
November	24	23.857	0.143	0.143	0.02	0.595%
December	26	24.429	1.571	1.571	2.469	6.044%
TOTALS	292		-4	7.714	26.041	35.751%
AVERAGE	24.333		-0.8	1.543	5.208	7.15%
Next period forecast		24.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.946	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26					
June	27					
July	26					
August	25					
September	20	24.875	-4.875	4.875	23.766	24.375%
October	23	24.125	-1.125	1.125	1.266	4.891%
November	24	24	0	0	0	0%
December	26	23.875	2.125	2.125	4.516	8.173%
TOTALS	292		-3.875	8.125	29.547	37.439%
AVERAGE	24.333		-0.969	2.031	7.387	9.36%
Next period forecast		24.625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.844	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26					
June	27					
July	26					
August	25					
September	20					
October	23	24.333	-1.333	1.333	1.778	5.797%
November	24	24	0	0	0	0%
December	26	24	2	2	4	7.692%
TOTALS	292		667	3.333	5.778	13.489%
AVERAGE	24.333		222	1.111	1.926	4.496%
Next period forecast		24.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.404	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24					
March	25					
April	20					
May	26					
June	27					
July	26					
August	25					
September	20					
October	23					
November	24	24.2	-0.2	0.2	0.04	0.833%
December	26	24	2	2	4	7.692%
TOTALS	292		1.8	2.2	4.04	8.526%
AVERAGE	24.333		0.9	1.1	2.02	4.263%
Next period forecast		24.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7	5.5	1.5	1.5	2.25	21.429%
April	6	6	0	0	0	0%
May	10	6.5	3.5	3.5	12.25	35%
June	8	8	0	0	0	0%
July	4	9	-5	5	25	125%
August	6	6	0	0	0	0%
September	3	5	-2	2	4	66.667%
October	5	4.5	.5	.5	.25	10%
November	4	4	0	0	0	0%
December	6	4.5	1.5	1.5	2.25	25%
TOTALS	70		0	14	46	283.095%
AVERAGE	5.833		0	1.4	4.6	28.31%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.398	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6	6	0	0	0	0%
May	10	6	4	4	16	40%
June	8	7.667	.333	.333	.111	4.167%
July	4	8	-4	4	16	100%
August	6	7.333	-1.333	1.333	1.778	22.222%
September	3	6	-3	3	9	100%
October	5	4.333	.667	.667	.444	13.333%
November	4	4.667	-.667	.667	.444	16.667%
December	6	4	2	2	4	33.333%
TOTALS	70		-2	16	47.778	329.722%
AVERAGE	5.833		-.222	1.778	5.309	36.636%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.613	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10	6	4	4	16	40%
June	8	7	1	1	1	12.5%
July	4	7.75	-3.75	3.75	14.063	93.75%
August	6	7	-1	1	1	16.667%
September	3	7	-4	4	16	133.333%
October	5	5.25	-.25	.25	.063	5%
November	4	4.5	-.5	.5	.25	12.5%
December	6	4.5	1.5	1.5	2.25	25%
TOTALS	70		-3	16	50.625	338.75%
AVERAGE	5.833		-.375	2	6.328	42.344%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.905	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8	6.8	1.2	1.2	1.44	15%
July	4	7.2	-3.2	3.2	10.24	80%
August	6	7	-1	1	1	16.667%
September	3	6.8	-3.8	3.8	14.44	126.667%
October	5	6.2	-1.2	1.2	1.44	24%
November	4	5.2	-1.2	1.2	1.44	30%
December	6	4.4	1.6	1.6	2.56	26.667%
TOTALS	70		-7.6	13.2	32.56	319%
AVERAGE	5.833		-1.086	1.886	4.651	45.571%
Next period forecast		4.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.552	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4	7	-3	3	9	75%
August	6	6.667	-.667	.667	.444	11.111%
September	3	6.833	-3.833	3.833	14.694	127.778%
October	5	6.167	-1.167	1.167	1.361	23.333%
November	4	6	-2	2	4	50%
December	6	5	1	1	1	16.667%
TOTALS	70		-9.667	11.667	30.5	303.889%
AVERAGE	5.833		-1.611	1.944	5.083	50.648%
Next period forecast		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.761	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6	6.571	-.571	.571	.327	9.524%
September	3	6.571	-3.571	3.571	12.755	119.048%
October	5	6.286	-1.286	1.286	1.653	25.714%
November	4	6	-2	2	4	50%
December	6	5.714	.286	.286	.082	4.762%
TOTALS	70		-7.143	7.714	18.816	209.048%
AVERAGE	5.833		-1.429	1.543	3.763	41.81%
Next period forecast		5.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.504	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6					
September	3	6.5	-3.5	3.5	12.25	116.667%
October	5	6.125	-1.125	1.125	1.266	22.5%
November	4	6.125	-2.125	2.125	4.516	53.125%
December	6	5.75	.25	.25	.063	4.167%
TOTALS	70		-6.5	7	18.094	196.458%
AVERAGE	5.833		-1.625	1.75	4.523	49.115%
Next period forecast		5.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.008	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6					
September	3					
October	5	6.111	-1.111	1.111	1.235	22.222%
November	4	6	-2	2	4	50%
December	6	5.889	.111	.111	.012	1.852%
TOTALS	70		-3	3.222	5.247	74.074%
AVERAGE	5.833		-1	1.074	1.749	24.691%
Next period forecast		5.778	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.291	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6					
September	3					
October	5					
November	4	6	-2	2	4	50%
December	6	5.8	.2	.2	.04	3.333%
TOTALS	70		-1.8	2.2	4.04	53.333%
AVERAGE	5.833		-0.9	1.1	2.02	26.667%
Next period forecast		5.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4	4.5	-0.5	0.5	0.25	12.5%
April	6	4.5	1.5	1.5	2.25	25%
May	8	5	3	3	9	37.5%
June	5	7	-2	2	4	40%
July	7	6.5	0.5	0.5	0.25	7.143%
August	10	6	4	4	16	40%
September	3	8.5	-5.5	5.5	30.25	183.333%
October	1	6.5	-5.5	5.5	30.25	550%
November	2	2	0	0	0	0%
December	4	1.5	2.5	2.5	6.25	62.5%
TOTALS	59		-2	25	98.5	957.976%
AVERAGE	4.917		-0.2	2.5	9.85	95.798%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.509	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5	5.4	-0.4	0.4	0.16	8%
July	7	5.6	1.4	1.4	1.96	20%
August	10	6	4	4	16	40%
September	3	7.2	-4.2	4.2	17.64	140%
October	1	6.6	-5.6	5.6	31.36	560%
November	2	5.2	-3.2	3.2	10.24	160%
December	4	4.6	-0.6	0.6	0.36	15%
TOTALS	59		-8.6	19.4	77.72	943%
AVERAGE	4.917		-1.229	2.771	11.103	134.714%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.943	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10					
September	3	6.125	-3.125	3.125	9.766	104.167%
October	1	6	-5	5	25	500%
November	2	5.5	-3.5	3.5	12.25	175%
December	4	5.25	-1.25	1.25	1.563	31.25%
TOTALS	59		-12.875	12.875	48.578	810.417%
AVERAGE	4.917		-3.219	3.219	12.145	202.604%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.928	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6	4.333	1.667	1.667	2.778	27.778%
May	8	5	3	3	9	37.5%
June	5	6	-1	1	1	20%
July	7	6.333	0.667	0.667	0.444	9.524%
August	10	6.667	3.333	3.333	11.111	33.333%
September	3	7.333	-4.333	4.333	18.778	144.444%
October	1	6.667	-5.667	5.667	32.111	566.667%
November	2	4.667	-2.667	2.667	7.111	133.333%
December	4	2	2	2	4	50%
TOTALS	59		-3	24.333	86.333	1022.579%
AVERAGE	4.917		-0.333	2.704	9.593	113.62%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.512	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7	5.333	1.667	1.667	2.778	23.81%
August	10	5.833	4.167	4.167	17.361	41.667%
September	3	6.667	-3.667	3.667	13.444	122.222%
October	1	6.5	-5.5	5.5	30.25	550%
November	2	5.667	-3.667	3.667	13.444	183.333%
December	4	4.667	-0.667	0.667	0.444	16.667%
TOTALS	59		-7.667	19.333	77.722	937.699%
AVERAGE	4.917		-1.278	3.222	12.954	156.283%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.408	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10					
September	3					
October	1	5.778	-4.778	4.778	22.827	477.778%
November	2	5.444	-3.444	3.444	11.864	172.222%
December	4	5.111	-1.111	1.111	1.235	27.778%
TOTALS	59		-9.333	9.333	35.926	677.778%
AVERAGE	4.917		-3.111	3.111	11.975	225.926%
Next period forecast		5.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.994	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8	4.75	3.25	3.25	10.563	40.625%
June	5	5.75	-0.75	0.75	0.563	15%
July	7	5.75	1.25	1.25	1.563	17.857%
August	10	6.5	3.5	3.5	12.25	35%
September	3	7.5	-4.5	4.5	20.25	150%
October	1	6.25	-5.25	5.25	27.563	525%
November	2	5.25	-3.25	3.25	10.563	162.5%
December	4	4	0	0	0	0%
TOTALS	59		-5.75	21.75	83.313	945.982%
AVERAGE	4.917		-0.719	2.719	10.414	118.248%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.726	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10	5.571	4.429	4.429	19.612	44.286%
September	3	6.429	-3.429	3.429	11.755	114.286%
October	1	6.143	-5.143	5.143	26.449	514.286%
November	2	5.714	-3.714	3.714	13.796	185.714%
December	4	5.143	-1.143	1.143	1.306	28.571%
TOTALS	59		-9	17.857	72.918	887.143%
AVERAGE	4.917		-1.8	3.571	14.584	177.429%
Next period forecast		4.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.93	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10					
September	3					
October	1					
November	2	5.3	-3.3	3.3	10.89	165%
December	4	5.1	-1.1	1.1	1.21	27.5%
TOTALS	59		-4.4	4.4	12.1	192.5%
AVERAGE	4.917		-0.44	0.44	1.21	96.25%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarangi mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9	9.5	-0.5	0.5	0.25	5.56%
April	10	10.5	-0.5	0.5	0.25	5%
May	13	9.5	3.5	3.5	12.25	26.923%
June	8	11.5	-3.5	3.5	12.25	43.75%
July	15	10.5	4.5	4.5	20.25	30%
August	11	11.5	-0.5	0.5	0.25	4.545%
September	14	13	1	1	1	7.143%
October	17	12.5	4.5	4.5	20.25	26.471%
November	16	15.5	0.5	0.5	0.25	3.125%
December	15	16.5	-1.5	1.5	2.25	10%
TOTALS	147		7.5	20.5	69.25	162.513%
AVERAGE	12.25		0.75	2.05	6.925	16.251%
Next period forecast		15.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.942	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10	9.333	0.667	0.667	0.444	6.667%
May	13	10.333	2.667	2.667	7.111	20.513%
June	8	10.667	-2.667	2.667	7.111	33.333%
July	15	10.333	4.667	4.667	21.778	31.111%
August	11	12	-1	1	1	9.091%
September	14	11.333	2.667	2.667	7.111	19.048%
October	17	13.333	3.667	3.667	13.444	21.569%
November	16	14	2	2	4	12.5%
December	15	15.667	-0.667	0.667	0.444	4.444%
TOTALS	147		12	20.667	62.444	158.276%
AVERAGE	12.25		1.333	2.296	6.938	17.586%
Next period forecast		16	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.987	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13	9.5	3.5	3.5	12.25	26.923%
June	8	11	-3	3	9	37.5%
July	15	10	5	5	25	33.333%
August	11	11.5	-0.5	0.5	0.25	4.545%
September	14	11.75	2.25	2.25	5.063	16.071%
October	17	12	5	5	25	29.412%
November	16	14.25	1.75	1.75	3.063	10.938%
December	15	14.5	0.5	0.5	0.25	3.333%
TOTALS	147		14.5	21.5	79.875	162.056%
AVERAGE	12.25		1.813	2.688	9.984	20.257%
Next period forecast		15.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.649	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8	10.2	-2.2	2.2	4.84	27.5%
July	15	10.4	4.6	4.6	21.16	30.667%
August	11	11	0	0	0	0%
September	14	11.4	2.6	2.6	6.76	18.571%
October	17	12.2	4.8	4.8	23.04	28.235%
November	16	13	3	3	9	18.75%
December	15	14.6	0.4	0.4	0.16	2.667%
TOTALS	147		13.2	17.6	64.96	126.39%
AVERAGE	12.25		1.886	2.514	9.28	18.056%
Next period forecast		14.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.604	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15	9.833	5.167	5.167	26.694	34.444%
August	11	11.167	-0.167	0.167	0.028	1.515%
September	14	11	3	3	9	21.429%
October	17	11.833	5.167	5.167	26.694	30.392%
November	16	13	3	3	9	18.75%
December	15	13.5	1.5	1.5	2.25	10%
TOTALS	147		17.667	18	73.667	116.53%
AVERAGE	12.25		2.944	3	12.278	19.422%
Next period forecast		14.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.291	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11	10.571	0.429	0.429	0.184	3.896%
September	14	11.143	2.857	2.857	8.163	20.408%
October	17	11.429	5.571	5.571	31.041	32.773%
November	16	12.571	3.429	3.429	11.755	21.429%
December	15	13.429	1.571	1.571	2.469	10.476%
TOTALS	147		13.857	13.857	53.612	88.982%
AVERAGE	12.25		2.771	2.771	10.722	17.796%
Next period forecast		13.714	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.227	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11					
September	14	10.625	3.375	3.375	11.391	24.107%
October	17	11.5	5.5	5.5	30.25	32.353%
November	16	12.125	3.875	3.875	15.016	24.219%
December	15	13	2	2	4	13.333%
TOTALS	147		14.75	14.75	60.656	94.012%
AVERAGE	12.25		3.688	3.688	15.164	23.503%
Next period forecast		13.625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.507	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11					
September	14					
October	17	11	6	6	36	35.294%
November	16	12.111	3.889	3.889	15.123	24.306%
December	15	12.556	2.444	2.444	5.975	16.296%
TOTALS	147		12.333	12.333	57.099	75.896%
AVERAGE	12.25		4.111	4.111	19.033	25.299%
Next period forecast		13.222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.556	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11					
September	14					
October	17					
November	16	11.6	4.4	4.4	19.36	27.5%
December	15	12.5	2.5	2.5	6.25	16.667%
TOTALS	147		6.9	6.9	25.61	44.167%
AVERAGE	12.25		3.45	3.45	12.805	22.083%
Next period forecast		12.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4	5.5	-1.5	1.5	2.25	37.5%
April	5	5	0	0	0	0%
May	3	4.5	-1.5	1.5	2.25	50%
June	2	4	-2	2	4	100%
July	5	2.5	2.5	2.5	6.25	50%
August	4	3.5	-.5	.5	.25	12.5%
September	3	4.5	-1.5	1.5	2.25	50%
October	3	3.5	-.5	.5	.25	16.667%
November	5	3	2	2	4	40%
December	2	4	-2	2	4	100%
TOTALS	47		-4	14	25.5	456.667%
AVERAGE	3.917		-4	1.4	2.55	45.667%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.785	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2	4.6	-2.6	2.6	6.76	130%
July	5	4	1	1	1	20%
August	4	3.8	-.2	.2	.04	5%
September	3	3.8	-.8	.8	.64	26.667%
October	3	3.4	-.4	.4	.16	13.333%
November	5	3.4	1.6	1.6	2.56	32%
December	2	4	-2	2	4	100%
TOTALS	47		-3	8.6	15.16	327%
AVERAGE	3.917		-4.29	1.229	2.166	46.714%
Next period forecast		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.741	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4					
September	3	4.25	-1.25	1.25	1.563	41.667%
October	3	4	-1	1	1	33.333%
November	5	3.625	1.375	1.375	1.891	27.5%
December	2	3.75	-1.75	1.75	3.063	87.5%
TOTALS	47		-2.625	5.375	7.516	190%
AVERAGE	3.917		-6.56	1.344	1.879	47.5%
Next period forecast		3.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.939	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5	5	0	0	0	0%
May	3	5	-2	2	4	66.667%
June	2	4	-2	2	4	100%
July	5	3.333	1.667	1.667	2.778	33.333%
August	4	3.333	.667	.667	.444	16.667%
September	3	3.667	-.667	.667	.444	22.222%
October	3	4	-1	1	1	33.333%
November	5	3.333	1.667	1.667	2.778	33.333%
December	2	3.667	-1.667	1.667	2.778	83.333%
TOTALS	47		-3.333	11.333	18.222	388.889%
AVERAGE	3.917		-.37	1.259	2.025	43.21%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.613	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5	4.167	.833	.833	.694	16.667%
August	4	4.167	-.167	.167	.028	4.167%
September	3	3.833	-.833	.833	.694	27.778%
October	3	3.667	-.667	.667	.444	22.222%
November	5	3.333	1.667	1.667	2.778	33.333%
December	2	3.667	-1.667	1.667	2.778	83.333%
TOTALS	47		-.833	5.833	7.417	187.5%
AVERAGE	3.917		-.139	.972	1.236	31.25%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.362	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4					
September	3					
October	3	4.111	-1.111	1.111	1.235	37.037%
November	5	3.889	1.111	1.111	1.235	22.222%
December	2	3.778	-1.778	1.778	3.16	88.889%
TOTALS	47		-1.778	4	5.63	148.148%
AVERAGE	3.917		-.593	1.333	1.877	49.383%
Next period forecast		3.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.373	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3	5	-2	2	4	66.667%
June	2	4.5	-2.5	2.5	6.25	125%
July	5	3.5	1.5	1.5	2.25	30%
August	4	3.75	-.25	.25	.063	6.25%
September	3	3.5	-.5	.5	.25	16.667%
October	3	3.5	-.5	.5	.25	16.667%
November	5	3.75	1.25	1.25	1.563	25%
December	2	3.75	-1.75	1.75	3.063	87.5%
TOTALS	47		-4.25	10.25	17.688	373.75%
AVERAGE	3.917		-.531	1.281	2.211	46.719%
Next period forecast		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.717	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4	4.286	-.286	.286	.082	7.143%
September	3	4.143	-1.143	1.143	1.306	38.095%
October	3	3.714	-.714	.714	.51	23.81%
November	5	3.571	1.429	1.429	2.041	28.571%
December	2	3.571	-1.571	1.571	2.469	78.571%
TOTALS	47		-2.286	5.143	6.408	176.191%
AVERAGE	3.917		-.457	1.029	1.282	35.238%
Next period forecast		3.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.462	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4					
September	3					
October	3					
November	5	4	1	1	1	20%
December	2	4	-2	2	4	100%
TOTALS	47		-1	3	5	120%
AVERAGE	3.917		-.5	1.5	2.5	60%
Next period forecast		3.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



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Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5	3.5	1.5	1.5	2.25	30%
April	7	4.5	2.5	2.5	6.25	35.714%
May	2	6	-4	4	16	200%
June	5	4.5	.5	.5	.25	10%
July	3	3.5	-.5	.5	.25	16.667%
August	8	4	4	4	16	50%
September	7	5.5	1.5	1.5	2.25	21.429%
October	4	7.5	-3.5	3.5	12.25	87.5%
November	7	5.5	1.5	1.5	2.25	21.429%
December	2	5.5	-3.5	3.5	12.25	175%
TOTALS	57		0	23	70	647.738%
AVERAGE	4.75		0	2.3	7	64.774%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.958	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7	4	3	3	9	42.857%
May	2	5.333	-3.333	3.333	11.111	166.667%
June	5	4.667	.333	.333	.111	6.667%
July	3	4.667	-1.667	1.667	2.778	55.556%
August	8	3.333	4.667	4.667	21.778	58.333%
September	7	5.333	1.667	1.667	2.778	23.81%
October	4	6	-2	2	4	50%
November	7	6.333	.667	.667	.444	9.524%
December	2	6	-4	4	16	200%
TOTALS	57		-667	21.333	68	613.413%
AVERAGE	4.75		-.074	2.37	7.556	68.157%
Next period forecast		4.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.117	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2	4.75	-2.75	2.75	7.563	137.5%
June	5	4.5	.5	.5	.25	10%
July	3	4.75	-1.75	1.75	3.063	58.333%
August	8	4.25	3.75	3.75	14.063	46.875%
September	7	4.5	2.5	2.5	6.25	35.714%
October	4	5.75	-1.75	1.75	3.063	43.75%
November	7	5.5	1.5	1.5	2.25	21.429%
December	2	6.5	-4.5	4.5	20.25	225%
TOTALS	57		-2.5	19	56.75	578.601%
AVERAGE	4.75		-.313	2.375	7.094	72.325%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.075	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5	4.2	.8	.8	.64	16%
July	3	4.6	-1.6	1.6	2.56	53.333%
August	8	4.4	3.6	3.6	12.96	45%
September	7	5	2	2	4	28.571%
October	4	5	-1	1	1	25%
November	7	5.4	1.6	1.6	2.56	22.857%
December	2	5.8	-3.8	3.8	14.44	190%
TOTALS	57		1.6	14.4	38.16	380.762%
AVERAGE	4.75		.229	2.057	5.451	54.395%
Next period forecast		5.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.763	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3	4.333	-1.333	1.333	1.778	44.444%
August	8	4.333	3.667	3.667	13.444	45.833%
September	7	5	2	2	4	28.571%
October	4	5.333	-1.333	1.333	1.778	33.333%
November	7	4.833	2.167	2.167	4.694	30.952%
December	2	5.667	-3.667	3.667	13.444	183.333%
TOTALS	57		1.5	14.167	39.139	366.468%
AVERAGE	4.75		.25	2.361	6.523	61.078%
Next period forecast		5.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.128	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8	4.143	3.857	3.857	14.878	48.214%
September	7	4.857	2.143	2.143	4.592	30.612%
October	4	5.286	-1.286	1.286	1.653	32.143%
November	7	5.143	1.857	1.857	3.449	26.531%
December	2	5.143	-3.143	3.143	9.878	157.143%
TOTALS	57		3.429	12.286	34.449	294.643%
AVERAGE	4.75		.686	2.457	6.89	58.929%
Next period forecast		5.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.389	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8					
September	7	4.625	2.375	2.375	5.641	33.929%
October	4	5.125	-1.125	1.125	1.266	28.125%
November	7	5.125	1.875	1.875	3.516	26.786%
December	2	5.375	-3.375	3.375	11.391	168.75%
TOTALS	57		-.25	8.75	21.813	257.589%
AVERAGE	4.75		-.063	2.188	5.453	64.397%
Next period forecast		4.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.302	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8					
September	7					
October	4	4.889	-.889	.889	.79	22.222%
November	7	5	2	2	4	28.571%
December	2	5.333	-3.333	3.333	11.111	166.667%
TOTALS	57		-2.222	6.222	15.901	217.46%
AVERAGE	4.75		-.741	2.074	5.3	72.487%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.988	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8					
September	7					
October	4					
November	7	4.8	2.2	2.2	4.84	31.429%
December	2	5.2	-3.2	3.2	10.24	160%
TOTALS	57		-1	5.4	15.08	191.429%
AVERAGE	4.75		-.5	2.7	7.54	95.714%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5	2.5	2.5	2.5	6.25	50%
April	4	4	0	0	0	0%
May	8	4.5	3.5	3.5	12.25	43.75%
June	5	6	-1	1	1	20%
July	8	6.5	1.5	1.5	2.25	18.75%
August	4	6.5	-2.5	2.5	6.25	62.5%
September	2	6	-4	4	16	200%
October	3	3	0	0	0	0%
November	4	2.5	1.5	1.5	2.25	37.5%
December	2	3.5	-1.5	1.5	2.25	75%
TOTALS	50		0	18	48.5	507.5%
AVERAGE	4.167		0	1.8	4.85	50.75%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.462	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5	4.4	.6	.6	.36	12%
July	8	5	3	3	9	37.5%
August	4	6	-2	2	4	50%
September	2	5.8	-3.8	3.8	14.44	190%
October	3	5.4	-2.4	2.4	5.76	80%
November	4	4.4	-.4	.4	.16	10%
December	2	4.2	-2.2	2.2	4.84	110%
TOTALS	50		-7.2	14.4	38.56	489.5%
AVERAGE	4.167		-1.029	2.057	5.509	69.929%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.777	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4					
September	2	4.875	-2.875	2.875	8.266	143.75%
October	3	4.875	-1.875	1.875	3.516	62.5%
November	4	4.875	-.875	.875	.766	21.875%
December	2	4.75	-2.75	2.75	7.563	137.5%
TOTALS	50		-8.375	8.375	20.109	365.625%
AVERAGE	4.167		-2.094	2.094	5.027	91.406%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.171	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4	3.333	.667	.667	.444	16.667%
May	8	4	4	4	16	50%
June	5	5.667	-.667	.667	.444	13.333%
July	8	5.667	2.333	2.333	5.444	29.167%
August	4	7	-3	3	9	75%
September	2	5.667	-3.667	3.667	13.444	183.333%
October	3	4.667	-1.667	1.667	2.778	55.566%
November	4	3	1	1	1	25%
December	2	3	-1	1	1	50%
TOTALS	50		-2	18	49.566	498.056%
AVERAGE	4.167		-.222	2	5.506	55.34%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.661	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8	4.5	3.5	3.5	12.25	43.75%
August	4	5.5	-1.5	1.5	2.25	37.5%
September	2	5.667	-3.667	3.667	13.444	183.333%
October	3	5.167	-2.167	2.167	4.694	72.222%
November	4	5	-1	1	1	25%
December	2	4.333	-2.333	2.333	5.444	116.667%
TOTALS	50		-7.167	14.167	39.083	478.472%
AVERAGE	4.167		-1.194	2.361	6.514	79.745%
Next period forecast		3.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.126	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4					
September	2					
October	3	4.556	-1.556	1.556	2.42	51.852%
November	4	4.667	-.667	.667	.444	16.667%
December	2	4.778	-2.778	2.778	7.716	138.889%
TOTALS	50		-5	5	10.58	207.407%
AVERAGE	4.167		-1.667	1.667	3.527	69.136%
Next period forecast		4.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.253	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8	3.5	4.5	4.5	20.25	56.25%
June	5	5	0	0	0	0%
July	8	5.5	2.5	2.5	6.25	31.25%
August	4	6.25	-2.25	2.25	5.063	56.25%
September	2	6.25	-4.25	4.25	18.063	212.5%
October	3	4.75	-1.75	1.75	3.063	58.333%
November	4	4.25	-.25	.25	.063	6.25%
December	2	3.25	-1.25	1.25	1.563	62.5%
TOTALS	50		-2.75	16.75	54.313	483.333%
AVERAGE	4.167		-.344	2.094	6.789	60.417%
Next period forecast		2.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.009	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4	5	-1	1	1	25%
September	2	5.286	-3.286	3.286	10.796	164.286%
October	3	5.143	-2.143	2.143	4.592	71.429%
November	4	4.857	-.857	.857	.735	21.429%
December	2	4.857	-2.857	2.857	8.163	142.857%
TOTALS	50		-10.143	10.143	25.286	425%
AVERAGE	4.167		-2.029	2.029	5.057	85%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.903	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4					
September	2					
October	3					
November	4	4.4	-.4	.4	.16	10%
December	2	4.6	-2.6	2.6	6.76	130%
TOTALS	50		-3	3	6.92	140%
AVERAGE	4.167		-1.5	1.5	3.46	70%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9	7.5	1.5	1.5	2.25	16.667%
April	7	8	-1	1	1	14.286%
May	8	8	0	0	0	0%
June	6	7.5	-1.5	1.5	2.25	25%
July	8	7	1	1	1	12.5%
August	10	7	3	3	9	30%
September	9	9	0	0	0	0%
October	11	9.5	1.5	1.5	2.25	13.636%
November	8	10	-2	2	4	25%
December	10	9.5	.5	.5	.25	5%
TOTALS	101		3	12	22	142.089%
AVERAGE	8.417		.3	1.2	2.2	14.209%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.658	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7	8	-1	1	1	14.286%
May	8	7.667	.333	.333	.111	4.167%
June	6	8	-2	2	4	33.333%
July	8	7	1	1	1	12.5%
August	10	7.333	2.667	2.667	7.111	26.667%
September	9	8	1	1	1	11.111%
October	11	9	2	2	4	18.182%
November	8	10	-2	2	4	25%
December	10	9.333	.667	.667	.444	6.667%
TOTALS	101		2.667	12.667	22.667	151.912%
AVERAGE	8.417		.296	1.407	2.519	16.879%
Next period forecast		9.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.799	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8	7.75	.25	.25	.063	3.125%
June	6	7.75	-1.75	1.75	3.063	29.167%
July	8	7.5	.5	.5	.25	6.25%
August	10	7.25	2.75	2.75	7.563	27.5%
September	9	8	1	1	1	11.111%
October	11	8.25	2.75	2.75	7.563	25%
November	8	9.5	-1.5	1.5	2.25	18.75%
December	10	9.5	.5	.5	.25	5%
TOTALS	101		4.5	11	22	125.903%
AVERAGE	8.417		.563	1.375	2.75	15.738%
Next period forecast		9.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.915	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6	7.8	-1.8	1.8	3.24	30%
July	8	7.4	.6	.6	.36	7.5%
August	10	7.6	2.4	2.4	5.76	24%
September	9	7.8	1.2	1.2	1.44	13.333%
October	11	8.2	2.8	2.8	7.84	25.455%
November	8	8.8	-.8	.8	.64	10%
December	10	9.2	.8	.8	.64	8%
TOTALS	101		5.2	10.4	19.92	118.288%
AVERAGE	8.417		.743	1.486	2.846	16.898%
Next period forecast		9.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.996	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8	7.5	.5	.5	.25	6.25%
August	10	7.5	2.5	2.5	6.25	25%
September	9	8	1	1	1	11.111%
October	11	8	3	3	9	27.273%
November	8	8.667	-.667	.667	.444	8.333%
December	10	8.667	1.333	1.333	1.778	13.333%
TOTALS	101		7.667	9	18.722	91.301%
AVERAGE	8.417		1.278	1.5	3.12	15.217%
Next period forecast		9.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.163	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10	7.571	2.429	2.429	5.898	24.286%
September	9	7.857	1.143	1.143	1.306	12.698%
October	11	8.143	2.857	2.857	8.163	25.974%
November	8	8.429	-.429	.429	.184	5.357%
December	10	8.571	1.429	1.429	2.041	14.286%
TOTALS	101		7.429	8.286	17.592	82.601%
AVERAGE	8.417		1.486	1.657	3.518	16.52%
Next period forecast		8.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.422	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10					
September	9	7.875	1.125	1.125	1.266	12.5%
October	11	8	3	3	9	27.273%
November	8	8.5	-.5	.5	.25	6.25%
December	10	8.375	1.625	1.625	2.641	16.25%
TOTALS	101		5.25	6.25	13.156	62.273%
AVERAGE	8.417		1.313	1.563	3.289	15.568%
Next period forecast		8.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.565	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10					
September	9					
October	11	8	3	3	9	27.273%
November	8	8.333	-.333	.333	.111	4.167%
December	10	8.444	1.556	1.556	2.42	15.566%
TOTALS	101		4.222	4.889	11.531	46.995%
AVERAGE	8.417		1.407	1.63	3.844	15.665%
Next period forecast		8.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.396	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10					
September	9					
October	11					
November	8	8.3	-.3	.3	.09	3.75%
December	10	8.3	1.7	1.7	2.89	17%
TOTALS	101		1.4	2	2.98	20.75%
AVERAGE	8.417		.7	1	1.49	10.375%
Next period forecast		8.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5	5	0	0	0	0%
April	4	5.5	-1.5	1.5	2.25	37.5%
May	3	4.5	-1.5	1.5	2.25	50%
June	5	3.5	1.5	1.5	2.25	30%
July	6	4	2	2	4	33.333%
August	4	5.5	-1.5	1.5	2.25	37.5%
September	3	5	-2	2	4	66.667%
October	2	3.5	-1.5	1.5	2.25	75%
November	4	2.5	1.5	1.5	2.25	37.5%
December	3	3	0	0	0	0%
TOTALS	49		-3	13	21.5	367.5%
AVERAGE	4.083		-3	1.3	2.15	36.75%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.639	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4	5	-1	1	1	25%
May	3	5	-2	2	4	66.667%
June	5	4	1	1	1	20%
July	6	4	2	2	4	33.333%
August	4	4.667	-.667	.667	.444	16.667%
September	3	5	-2	2	4	66.667%
October	2	4.333	-2.333	2.333	5.444	116.667%
November	4	3	1	1	1	25%
December	3	3	0	0	0	0%
TOTALS	49		-4	12	20.889	370%
AVERAGE	4.083		-.444	1.333	2.321	41.111%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.727	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3	4.75	-1.75	1.75	3.063	58.333%
June	5	4.5	.5	.5	.25	10%
July	6	4.25	1.75	1.75	3.063	29.167%
August	4	4.5	-.5	.5	.25	12.5%
September	3	4.5	-1.5	1.5	2.25	50%
October	2	4.5	-2.5	2.5	6.25	125%
November	4	3.75	.25	.25	.063	6.25%
December	3	3.25	-.25	.25	.063	8.333%
TOTALS	49		-4	9	15.25	299.583%
AVERAGE	4.083		-.5	1.125	1.906	37.448%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.594	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5	4.4	.6	.6	.36	12%
July	6	4.6	1.4	1.4	1.96	23.333%
August	4	4.6	-.6	.6	.36	15%
September	3	4.4	-1.4	1.4	1.96	46.667%
October	2	4.2	-2.2	2.2	4.84	110%
November	4	4	0	0	0	0%
December	3	3.8	-.8	.8	.64	26.667%
TOTALS	49		-3	7	10.12	233.667%
AVERAGE	4.083		-.429	1	1.446	33.381%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.423	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6	4.5	1.5	1.5	2.25	25%
August	4	4.833	-.833	.833	.694	20.833%
September	3	4.5	-1.5	1.5	2.25	50%
October	2	4.167	-2.167	2.167	4.694	108.333%
November	4	3.833	.167	.167	.028	4.167%
December	3	4	-1	1	1	33.333%
TOTALS	49		-3.833	7.167	10.917	241.667%
AVERAGE	4.083		-.639	1.194	1.819	40.278%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.652	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4	4.714	-.714	.714	.51	17.857%
September	3	4.714	-1.714	1.714	2.939	57.143%
October	2	4.286	-2.286	2.286	5.224	114.286%
November	4	3.857	.143	.143	.02	3.571%
December	3	3.857	-.857	.857	.735	28.571%
TOTALS	49		-5.429	5.714	9.429	221.429%
AVERAGE	4.083		-1.086	1.143	1.886	44.286%
Next period forecast		3.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.773	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4					
September	3	4.625	-1.625	1.625	2.641	54.167%
October	2	4.5	-2.5	2.5	6.25	125%
November	4	4	0	0	0	0%
December	3	3.875	-.875	.875	.766	29.167%
TOTALS	49		-5	5	9.656	208.333%
AVERAGE	4.083		-1.25	1.25	2.414	52.083%
Next period forecast		3.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.197	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4					
September	3					
October	2	4.444	-2.444	2.444	5.975	122.222%
November	4	4.222	-.222	.222	.049	5.556%
December	3	4	-1	1	1	33.333%
TOTALS	49		-3.667	3.667	7.025	161.111%
AVERAGE	4.083		-1.222	1.222	2.342	53.704%
Next period forecast		3.778	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.65	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4					
September	3					
October	2					
November	4	4.2	-.2	.2	.04	5%
December	3	4.2	-1.2	1.2	1.44	40%
TOTALS	49		-1.4	1.4	1.48	45%
AVERAGE	4.083		-.7	.7	.74	22.5%
Next period forecast		3.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Phenylephrine 100 Mg Capsule

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4	4.5	-0.5	0.5	0.25	12.5%
April	3	4.5	-1.5	1.5	2.25	50%
May	6	3.5	2.5	2.5	6.25	41.667%
June	4	4.5	-0.5	0.5	0.25	12.5%
July	7	5	2	2	4	28.571%
August	3	5.5	-2.5	2.5	6.25	83.333%
September	10	5	5	5	25	50%
October	3	6.5	-3.5	3.5	12.25	116.667%
November	2	6.5	-4.5	4.5	20.25	225%
December	4	2.5	1.5	1.5	2.25	37.5%
TOTALS	55		-2	24	79	657.738%
AVERAGE	4.583		-0.2	2.4	7.9	65.774%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.142	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4	4.4	-0.4	0.4	0.16	10%
July	7	4.4	2.6	2.6	6.76	37.143%
August	3	4.8	-1.8	1.8	3.24	60%
September	10	4.6	5.4	5.4	29.16	54%
October	3	6	-3	3	9	100%
November	2	5.4	-3.4	3.4	11.56	170%
December	4	5	-1	1	1	25%
TOTALS	55		-1.6	17.6	60.88	456.143%
AVERAGE	4.583		-0.229	2.514	8.697	65.163%
Next period forecast		4.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.489	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3					
September	10	4.5	5.5	5.5	30.25	55%
October	3	5.25	-2.25	2.25	5.063	75%
November	2	5	-3	3	9	150%
December	4	4.75	-0.75	0.75	0.563	18.75%
TOTALS	55		-5	11.5	44.875	298.75%
AVERAGE	4.583		-0.625	2.875	11.219	74.688%
Next period forecast		4.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.737	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3	4.333	-1.333	1.333	1.778	44.444%
May	6	4	2	2	4	33.333%
June	4	4.333	-0.333	0.333	0.111	8.333%
July	7	4.333	2.667	2.667	7.111	38.095%
August	3	5.667	-2.667	2.667	7.111	88.889%
September	10	4.667	5.333	5.333	28.444	53.333%
October	3	6.667	-3.667	3.667	13.444	122.222%
November	2	5.333	-3.333	3.333	11.111	166.667%
December	4	5	-1	1	1	25%
TOTALS	55		-2.333	22.333	74.111	580.318%
AVERAGE	4.583		-0.259	2.481	8.235	64.48%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.254	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7	4.333	2.667	2.667	7.111	38.095%
August	3	4.833	-1.833	1.833	3.361	61.111%
September	10	4.5	5.5	5.5	30.25	55%
October	3	5.5	-2.5	2.5	6.25	83.333%
November	2	5.5	-3.5	3.5	12.25	175%
December	4	4.833	-0.833	0.833	0.694	20.833%
TOTALS	55		-5	16.833	59.917	433.373%
AVERAGE	4.583		-0.833	2.806	9.986	72.229%
Next period forecast		4.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.87	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3					
September	10					
October	3	5.111	-2.111	2.111	4.457	70.37%
November	2	5	-3	3	9	150%
December	4	4.667	-0.667	0.667	0.444	16.667%
TOTALS	55		-5.778	5.778	13.901	237.037%
AVERAGE	4.583		-1.926	1.926	4.634	79.012%
Next period forecast		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.728	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6	4	2	2	4	33.333%
June	4	4.5	-0.5	0.5	0.25	12.5%
July	7	4.25	2.75	2.75	7.563	39.286%
August	3	5	-2	2	4	66.667%
September	10	5	5	5	25	50%
October	3	6	-3	3	9	100%
November	2	5.75	-3.75	3.75	14.063	187.5%
December	4	4.5	-0.5	0.5	0.25	12.5%
TOTALS	55		0	19.5	64.125	501.786%
AVERAGE	4.583		0	2.438	8.016	62.723%
Next period forecast		4.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.269	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3	4.714	-1.714	1.714	2.939	57.143%
September	10	4.571	5.429	5.429	29.469	54.286%
October	3	5.286	-2.286	2.286	5.224	76.19%
November	2	5.143	-3.143	3.143	9.878	157.143%
December	4	5	-1	1	1	25%
TOTALS	55		-2.714	13.571	48.51	369.762%
AVERAGE	4.583		-0.543	2.714	9.702	73.952%
Next period forecast		4.714	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.021	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3					
September	10					
October	3					
November	2	4.9	-2.9	2.9	8.41	145%
December	4	4.7	-0.7	0.7	0.49	17.5%
TOTALS	55		-3.6	3.6	8.9	162.5%
AVERAGE	4.583		-1.8	1.8	4.45	81.25%
Next period forecast		4.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbahayak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suka Riau.

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5	5	0	0	0	0%
April	7	5.5	1.5	1.5	2.25	21.429%
May	4	6	-2	2	4	50%
June	9	5.5	3.5	3.5	12.25	38.889%
July	4	6.5	-2.5	2.5	6.25	62.5%
August	3	6.5	-3.5	3.5	12.25	116.667%
September	6	3.5	2.5	2.5	6.25	41.667%
October	4	4.5	-0.5	.5	.25	12.5%
November	3	5	-2	2	4	66.667%
December	4	3.5	.5	.5	.25	12.5%
TOTALS	59		-2.5	18.5	47.75	422.818%
AVERAGE	4.917		-2.5	1.85	4.775	42.282%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.443	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9	5.2	3.8	3.8	14.44	42.222%
July	4	6.2	-2.2	2.2	4.84	55%
August	3	5.8	-2.8	2.8	7.84	93.333%
September	6	5.4	.6	.6	.36	10%
October	4	5.2	-1.2	1.2	1.44	30%
November	3	5.2	-2.2	2.2	4.84	73.333%
December	4	4	0	0	0	0%
TOTALS	59		-4	12.8	33.76	303.889%
AVERAGE	4.917		-1.29	1.829	4.823	43.413%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.598	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3					
September	6	5.25	.75	.75	.563	12.5%
October	4	5.5	-1.5	1.5	2.25	37.5%
November	3	5.25	-2.25	2.25	5.063	75%
December	4	5	-1	1	1	25%
TOTALS	59		-4	5.5	8.875	150%
AVERAGE	4.917		-1	1.375	2.219	37.5%
Next period forecast		4.625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.107	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7	5	2	2	4	28.571%
May	4	6	-2	2	4	50%
June	9	5.333	3.667	3.667	13.444	40.741%
July	4	6.667	-2.667	2.667	7.111	66.667%
August	3	5.667	-2.667	2.667	7.111	88.889%
September	6	5.333	.667	.667	.444	11.111%
October	4	4.333	-.333	.333	.111	8.333%
November	3	4.333	-1.333	1.333	1.778	44.444%
December	4	4.333	-.333	.333	.111	8.333%
TOTALS	59		-3	15.667	38.111	347.09%
AVERAGE	4.917		-3.333	1.741	4.235	38.566%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.333	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4	5.833	-1.833	1.833	3.361	45.833%
August	3	5.833	-2.833	2.833	8.028	94.444%
September	6	5.333	.667	.667	.444	11.111%
October	4	5.5	-1.5	1.5	2.25	37.5%
November	3	5	-2	2	4	66.667%
December	4	4.833	-.833	.833	.694	20.833%
TOTALS	59		-8.333	9.667	18.778	276.389%
AVERAGE	4.917		-1.389	1.611	3.13	46.065%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.167	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3					
September	6					
October	4	5.333	-1.333	1.333	1.778	33.333%
November	3	5.333	-2.333	2.333	5.444	77.778%
December	4	5	-1	1	1	25%
TOTALS	59		-4.667	4.667	8.222	136.111%
AVERAGE	4.917		-1.556	1.556	2.741	45.37%
Next period forecast		4.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.867	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4	5.5	-1.5	1.5	2.25	37.5%
June	9	5.5	3.5	3.5	12.25	38.889%
July	4	6.25	-2.25	2.25	5.063	56.25%
August	3	6	-3	3	9	100%
September	6	5	1	1	1	16.667%
October	4	5.5	-1.5	1.5	2.25	37.5%
November	3	4.25	-1.25	1.25	1.563	41.667%
December	4	4	0	0	0	0%
TOTALS	59		-5	14	33.375	328.472%
AVERAGE	4.917		-1.625	1.75	4.172	41.059%
Next period forecast		4.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.358	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3	5.571	-2.571	2.571	6.612	85.714%
September	6	5.429	.571	.571	.327	9.524%
October	4	5.429	-1.429	1.429	2.041	35.714%
November	3	5.286	-2.286	2.286	5.224	76.19%
December	4	4.714	-.714	.714	.51	17.857%
TOTALS	59		-6.429	7.571	14.714	225%
AVERAGE	4.917		-1.286	1.514	2.943	45%
Next period forecast		4.714	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.215	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3					
September	6					
October	4					
November	3	5.2	-2.2	2.2	4.84	73.333%
December	4	5.1	-1.1	1.1	1.21	27.5%
TOTALS	59		-3.3	3.3	6.05	100.833%
AVERAGE	4.917		-1.65	1.65	3.025	50.417%
Next period forecast		4.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

WEIGHTED MOVING AVERAGE

2. Diarangi mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26	24.333	1.667	1.667	2.778	6.41%
April	28	25.667	2.333	2.333	5.444	8.333%
May	20	27.333	-7.333	7.333	53.778	36.667%
June	22	22.667	-.667	.667	.444	3.03%
July	24	21.333	2.667	2.667	7.111	11.111%
August	20	23.333	-3.333	3.333	11.111	16.667%
September	25	21.333	3.667	3.667	13.444	14.667%
October	23	23.333	-.333	.333	.111	1.449%
November	26	23.667	2.333	2.333	5.444	8.974%
December	21	25	-4	4	16	19.048%
TOTALS	283		-3	28.333	115.667	126.356%
AVERAGE	23.583		-.3	2.833	11.567	12.636%
Next period forecast		22.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.802	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22	24.2	-2.2	2.2	4.84	10%
July	24	23.4	.6	.6	.36	2.5%
August	20	23.333	-3.333	3.333	11.111	16.667%
September	25	22	3	3	9	12%
October	23	22.733	.267	.267	.071	1.159%
November	26	23	3	3	9	11.538%
December	21	24.067	-3.067	3.067	9.404	14.603%
TOTALS	283		-1.733	15.467	43.787	68.468%
AVERAGE	23.583		-.248	2.21	6.255	9.781%
Next period forecast		23.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.959	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20					
September	25	22.861	2.139	2.139	4.575	8.556%
October	23	23.194	-.194	.194	.038	.845%
November	26	23.028	2.972	2.972	8.834	11.432%
December	21	23.583	-2.583	2.583	6.674	12.302%
TOTALS	283		2.333	7.889	20.12	33.134%
AVERAGE	23.583		.583	1.972	5.03	8.284%
Next period forecast		23.028	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.172	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28	25.167	2.833	2.833	8.028	10.119%
May	20	26.833	-6.833	6.833	46.694	34.167%
June	22	23.667	-1.667	1.667	2.778	7.576%
July	24	22.333	1.667	1.667	2.778	6.944%
August	20	22.667	-2.667	2.667	7.111	13.333%
September	25	21.667	3.333	3.333	11.111	13.333%
October	23	23.167	-.167	.167	.028	.725%
November	26	23.167	2.833	2.833	8.028	10.897%
December	21	24.833	-3.833	3.833	14.694	18.254%
TOTALS	283		-4.5	25.833	101.25	115.349%
AVERAGE	23.583		-.5	2.87	11.25	12.817%
Next period forecast		23	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.803	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24	23.571	.429	.429	.184	1.786%
August	20	23.571	-3.571	3.571	12.755	17.857%
September	25	22.381	2.619	2.619	6.859	10.476%
October	23	22.857	.143	.143	.02	.621%
November	26	22.81	3.19	3.19	10.179	12.271%
December	21	23.857	-2.857	2.857	8.163	13.605%
TOTALS	283		-0.048	12.81	38.161	56.617%
AVERAGE	23.583		-.008	2.135	6.36	9.436%
Next period forecast		23.19	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.089	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20					
September	25					
October	23	23.289	-.289	.289	.083	1.256%
November	26	23.156	2.844	2.844	8.091	10.94%
December	21	23.622	-2.622	2.622	6.876	12.487%
TOTALS	283		-.067	5.756	15.05	24.683%
AVERAGE	23.583		-.022	1.919	5.017	8.228%
Next period forecast		23.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.879	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20	26.3	-6.3	6.3	39.69	31.5%
June	22	24.1	-2.1	2.1	4.41	9.545%
July	24	23	1	1	1	4.167%
August	20	23	-3	3	9	15%
September	25	21.6	3.4	3.4	11.56	13.6%
October	23	23	0	0	0	0%
November	26	23.1	2.9	2.9	8.41	11.154%
December	21	24.3	-3.3	3.3	10.89	15.714%
TOTALS	283		-7.4	22	84.96	100.68%
AVERAGE	23.583		-.925	2.75	10.62	12.585%
Next period forecast		23.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.763	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20	23.679	-3.679	3.679	13.532	18.393%
September	25	22.679	2.321	2.321	5.389	9.286%
October	23	23.036	-.036	.036	.001	.155%
November	26	22.893	3.107	3.107	9.654	11.951%
December	21	23.607	-2.607	2.607	6.797	12.415%
TOTALS	283		-.893	11.75	35.374	52.199%
AVERAGE	23.583		-.179	2.35	7.075	10.44%
Next period forecast		23.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.434	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25					
March	26					
April	28					
May	20					
June	22					
July	24					
August	20					
September	25					
October	23					
November	26	23.236	2.764	2.764	7.638	10.629%
December	21	23.673	-2.673	2.673	7.143	12.727%
TOTALS	283		.091	5.436	14.781	23.357%
AVERAGE	23.583		.045	2.718	7.391	11.678%
Next period forecast		23.145	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diane

1. Periode 2
2. Periode 3
3. Periode 4
4. Periode 5
5. Periode 6
6. Periode 7
7. Periode 8
8. Periode 9
9. Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9	9.333	-0.333	.333	.111	3.704%
April	7	9.333	-2.333	2.333	5.444	33.333%
May	10	7.667	2.333	2.333	5.444	23.333%
June	8	9	-1	1	1	12.5%
July	6	8.667	-2.667	2.667	7.111	44.444%
August	8	6.667	1.333	1.333	1.778	16.667%
September	7	7.333	-0.333	.333	.111	4.762%
October	11	7.333	3.667	3.667	13.444	33.333%
November	4	9.667	-5.667	5.667	32.111	141.667%
December	8	6.333	1.667	1.667	2.778	20.833%
TOTALS	96		-3.333	21.333	69.333	334.577%
AVERAGE	8		-0.333	2.133	6.933	33.458%
Next period forecast		6.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.944	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7	9.167	-2.167	2.167	4.694	30.952%
May	10	8.167	1.833	1.833	3.361	18.333%
June	8	8.833	-0.833	.833	.694	10.417%
July	6	8.5	-2.5	2.5	6.25	41.667%
August	8	7.333	.667	.667	.444	8.333%
September	7	7.333	-0.333	.333	.111	4.762%
October	11	7.167	3.833	3.833	14.694	34.848%
November	4	9.167	-5.167	5.167	26.694	129.167%
December	8	6.833	1.167	1.167	1.361	14.583%
TOTALS	96		-3.5	18.5	58.306	293.063%
AVERAGE	8		-0.389	2.056	6.478	32.563%
Next period forecast		7.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.886	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10	8.3	1.7	1.7	2.89	17%
June	8	8.9	-0.9	.9	.81	11.25%
July	6	8.5	-2.5	2.5	6.25	41.667%
August	8	7.5	.5	.5	.25	6.25%
September	7	7.6	-.6	.6	.36	8.571%
October	11	7.2	3.8	3.8	14.44	34.545%
November	4	8.7	-4.7	4.7	22.09	117.5%
December	8	7.1	.9	.9	.81	11.25%
TOTALS	96		-1.8	15.6	47.9	248.034%
AVERAGE	8		-0.225	1.95	5.988	31.004%
Next period forecast		7.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.825	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8	8.867	-.867	.867	.751	10.833%
July	6	8.6	-2.6	2.6	6.76	43.333%
August	8	7.667	.333	.333	.111	4.167%
September	7	7.667	-.667	.667	.444	9.524%
October	11	7.4	3.6	3.6	12.96	32.727%
November	4	8.467	-4.467	4.467	19.951	111.667%
December	8	7.133	.867	.867	.751	10.833%
TOTALS	96		-3.8	13.4	41.729	223.084%
AVERAGE	8		-0.543	1.914	5.961	31.869%
Next period forecast		7.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.889	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6	8.619	-2.619	2.619	6.859	43.651%
August	8	7.857	.143	.143	.02	1.786%
September	7	7.762	-.762	.762	.58	10.884%
October	11	7.476	3.524	3.524	12.417	32.035%
November	4	8.429	-4.429	4.429	19.612	110.714%
December	8	7.19	.81	.81	.655	10.119%
TOTALS	96		-3.333	12.286	40.145	209.189%
AVERAGE	8		-0.556	2.048	6.691	34.865%
Next period forecast		7.381	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.168	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8	7.964	.036	.036	.001	.446%
September	7	7.893	-.893	.893	.797	12.755%
October	11	7.571	3.429	3.429	11.755	31.169%
November	4	8.357	-4.357	4.357	18.985	108.929%
December	8	7.321	.679	.679	.46	8.482%
TOTALS	96		-1.107	9.393	31.999	161.781%
AVERAGE	8		-0.221	1.879	6.4	32.356%
Next period forecast		7.393	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.266	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8					
September	7	7.972	-.972	.972	.945	13.889%
October	11	7.694	3.306	3.306	10.927	30.051%
November	4	8.333	-4.333	4.333	18.778	108.333%
December	8	7.389	.611	.611	.373	7.639%
TOTALS	96		-1.389	9.222	31.023	159.912%
AVERAGE	8		-0.347	2.306	7.756	39.978%
Next period forecast		7.472	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.938	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8					
September	7					
October	11	7.778	3.222	3.222	10.383	29.293%
November	4	8.356	-4.356	4.356	18.971	108.889%
December	8	7.467	.533	.533	.284	6.667%
TOTALS	96		-.6	8.111	29.638	144.849%
AVERAGE	8		-0.2	2.704	9.879	48.283%
Next period forecast		7.511	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.444	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10					
March	9					
April	7					
May	10					
June	8					
July	6					
August	8					
September	7					
October	11					
November	4	8.364	-4.364	4.364	19.041	109.091%
December	8	7.564	.436	.436	.19	5.455%
TOTALS	96		-3.927	4.8	19.232	114.546%
AVERAGE	8		-1.964	2.4	9.616	57.273%
Next period forecast		7.564	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarangi mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

2. Diarahkan mengemukakan dan memperbaiki sebagai bagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6	4.667	1.333	1.333	1.778	22.222%
April	6	5.333	.667	.667	.444	11.111%
May	7	6	1	1	1	14.286%
June	5	6.667	-1.667	1.667	2.778	33.333%
July	6	5.667	.333	.333	.111	5.556%
August	8	5.667	2.333	2.333	5.444	29.167%
September	7	7.333	-.333	.333	.111	4.762%
October	6	7.333	-1.333	1.333	1.778	22.222%
November	8	6.333	1.667	1.667	2.778	20.833%
December	5	7.333	-2.333	2.333	5.444	46.667%
TOTALS	74		1.667	13	21.667	210.159%
AVERAGE	6.167		.167	1.3	2.167	21.016%
Next period forecast		6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.646	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6	5.333	.667	.667	.444	11.111%
May	7	5.667	1.333	1.333	1.778	19.048%
June	5	6.5	-1.5	1.5	2.25	30%
July	6	5.833	.167	.167	.028	2.778%
August	8	5.833	2.167	2.167	4.694	27.083%
September	7	6.833	.167	.167	.028	2.381%
October	6	7.167	-1.167	1.167	1.361	19.444%
November	8	6.667	1.333	1.333	1.778	16.667%
December	5	7.167	-2.167	2.167	4.694	43.333%
TOTALS	74		1	10.667	17.056	171.845%
AVERAGE	6.167		.111	1.185	1.895	19.094%
Next period forecast		6.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.561	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7	5.6	1.4	1.4	1.96	20%
June	5	6.2	-1.2	1.2	1.44	24%
July	6	5.9	.1	.1	.01	1.667%
August	8	5.9	2.1	2.1	4.41	26.25%
September	7	6.7	-.3	.3	.09	4.286%
October	6	6.9	-.9	.9	.81	15%
November	8	6.7	1.3	1.3	1.69	16.25%
December	5	7.2	-2.2	2.2	4.84	44%
TOTALS	74		.9	9.5	15.25	151.452%
AVERAGE	6.167		.113	1.188	1.906	18.932%
Next period forecast		6.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.594	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5	6.067	-1.067	1.067	1.138	21.333%
July	6	5.8	.2	.2	.04	3.333%
August	8	5.933	2.067	2.067	4.271	25.833%
September	7	6.6	-.4	.4	.16	5.714%
October	6	6.8	-.8	.8	.64	13.333%
November	8	6.6	1.4	1.4	1.96	17.5%
December	5	7.133	-2.133	2.133	4.551	42.667%
TOTALS	74		.067	8.067	12.76	129.714%
AVERAGE	6.167		.01	1.152	1.823	18.531%
Next period forecast		6.467	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.597	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6	5.762	.238	.238	.057	3.968%
August	8	5.857	2.143	2.143	4.592	26.786%
September	7	6.524	.476	.476	.227	6.803%
October	6	6.714	-.714	.714	.51	11.905%
November	8	6.571	1.429	1.429	2.041	17.857%
December	5	7	-.2	.2	.4	40%
TOTALS	74		1.571	7	11.426	107.319%
AVERAGE	6.167		.262	1.167	1.904	17.886%
Next period forecast		6.524	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.69	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8	5.821	2.179	2.179	4.746	27.232%
September	7	6.393	.607	.607	.369	8.673%
October	6	6.643	-.643	.643	.413	10.714%
November	8	6.536	1.464	1.464	2.144	18.304%
December	5	6.929	-1.929	1.929	3.719	38.571%
TOTALS	74		1.679	6.821	11.392	103.495%
AVERAGE	6.167		.336	1.364	2.278	20.699%
Next period forecast		6.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.949	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8					
September	7	6.306	.694	.694	.482	9.921%
October	6	6.528	-.528	.528	.279	8.796%
November	8	6.5	1.5	1.5	2.25	18.75%
December	5	6.861	-1.861	1.861	3.464	37.222%
TOTALS	74		-.194	4.583	6.475	74.689%
AVERAGE	6.167		-.049	1.146	1.619	18.672%
Next period forecast		6.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.799	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8					
September	7					
October	6	6.444	-.444	.444	.198	7.407%
November	8	6.422	1.578	1.578	2.489	19.722%
December	5	6.8	-1.8	1.8	3.24	36%
TOTALS	74		-.667	3.822	5.927	63.13%
AVERAGE	6.167		-.222	1.274	1.976	21.043%
Next period forecast		6.489	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.435	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4					
March	6					
April	6					
May	7					
June	5					
July	6					
August	8					
September	7					
October	6					
November	8	6.364	1.636	1.636	2.678	20.455%
December	5	6.709	-1.709	1.709	2.921	34.182%
TOTALS	74		-.073	3.345	5.599	54.636%
AVERAGE	6.167		-.036	1.673	2.799	27.318%
Next period forecast		6.473	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3	5.333	-2.333	2.333	5.444	77.778%
April	1	4.333	-3.333	3.333	11.111	333.333%
May	4	1.667	2.333	2.333	5.444	58.333%
June	5	3	2	2	4	40%
July	6	4.667	1.333	1.333	1.778	22.222%
August	4	5.667	-1.667	1.667	2.778	41.667%
September	3	4.667	-1.667	1.667	2.778	55.556%
October	2	3.333	-1.333	1.333	1.778	66.667%
November	4	2.333	1.667	1.667	2.778	41.667%
December	3	3.333	-.333	.333	.111	11.111%
TOTALS	44		-3.333	18	38	748.333%
AVERAGE	3.667		-.333	1.8	3.8	74.833%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.179	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1	4.167	-3.167	3.167	10.028	316.667%
May	4	2.667	1.333	1.333	1.778	33.333%
June	5	2.833	2.167	2.167	4.694	43.333%
July	6	4	2	2	4	33.333%
August	4	5.333	-1.333	1.333	1.778	33.333%
September	3	4.833	-1.833	1.833	3.361	61.111%
October	2	3.833	-1.833	1.833	3.361	91.667%
November	4	2.667	1.333	1.333	1.778	33.333%
December	3	3.167	-.167	.167	.028	5.556%
TOTALS	44		-1.5	15.167	30.806	651.667%
AVERAGE	3.667		-.167	1.685	3.423	72.407%
Next period forecast		3.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.098	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4	2.9	1.1	1.1	1.21	27.5%
June	5	3.2	1.8	1.8	3.24	36%
July	6	3.7	2.3	2.3	5.29	38.333%
August	4	4.8	-.8	.8	.64	20%
September	3	4.8	-1.8	1.8	3.24	60%
October	2	4.1	-2.1	2.1	4.41	105%
November	4	3.1	.9	.9	.81	22.5%
December	3	3.2	-.2	.2	.04	6.667%
TOTALS	44		1.2	11	18.88	316%
AVERAGE	3.667		.15	1.375	2.36	39.5%
Next period forecast		3.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.774	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5	3.267	1.733	1.733	3.004	34.667%
July	6	3.8	2.2	2.2	4.84	36.667%
August	4	4.467	-.467	.467	.218	11.667%
September	3	4.533	-1.533	1.533	2.351	51.111%
October	2	4.2	-2.2	2.2	4.84	110%
November	4	3.4	.6	.6	.36	15%
December	3	3.4	-.4	.4	.16	13.333%
TOTALS	44		-.067	9.133	15.773	272.445%
AVERAGE	3.667		-.01	1.305	2.253	38.921%
Next period forecast		3.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.776	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6	3.762	2.238	2.238	5.009	37.302%
August	4	4.429	-.429	.429	.184	10.714%
September	3	4.333	-1.333	1.333	1.778	44.444%
October	2	4.095	-2.095	2.095	4.39	104.762%
November	4	3.571	.429	.429	.184	10.714%
December	3	3.571	-.571	.571	.327	19.048%
TOTALS	44		-1.762	7.095	11.871	226.984%
AVERAGE	3.667		-.294	1.183	1.978	37.831%
Next period forecast		3.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.723	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4	4.321	-.321	.321	.103	8.036%
September	3	4.321	-1.321	1.321	1.746	44.048%
October	2	4	-.2	.2	.4	100%
November	4	3.571	.429	.429	.184	10.714%
December	3	3.679	-.679	.679	.46	22.619%
TOTALS	44		-3.893	4.75	6.494	185.417%
AVERAGE	3.667		-.779	.95	1.299	37.083%
Next period forecast		3.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.471	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4					
September	3	4.25	-1.25	1.25	1.563	41.667%
October	2	4.028	-2.028	2.028	4.112	101.389%
November	4	3.556	.444	.444	.198	11.111%
December	3	3.667	-.667	.667	.444	22.222%
TOTALS	44		-3.5	4.389	6.316	176.389%
AVERAGE	3.667		-.875	1.097	1.579	44.097%
Next period forecast		3.528	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.777	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4					
September	3					
October	2	4	-2	2	4	100%
November	4	3.622	.378	.378	.143	9.444%
December	3	3.644	-.644	.644	.415	21.481%
TOTALS	44		-2.267	3.022	4.558	130.962%
AVERAGE	3.667		-.756	1.007	1.519	43.642%
Next period forecast		3.533	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.135	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7					
March	3					
April	1					
May	4					
June	5					
July	6					
August	4					
September	3					
October	2					
November	4	3.636	.364	.364	.132	9.091%
December	3	3.691	-.691	.691	.477	23.03%
TOTALS	44		-.327	1.055	.61	32.121%
AVERAGE	3.667		-.164	.527	.305	16.061%
Next period forecast		3.527	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3	3.333	-0.333	.333	.111	11.111%
April	7	3.333	3.667	3.667	13.444	52.381%
May	10	5.667	4.333	4.333	18.778	43.333%
June	4	9	-5	5	25	125%
July	3	6	-3	3	9	100%
August	2	3.333	-1.333	1.333	1.778	66.667%
September	5	2.333	2.667	2.667	7.111	53.333%
October	4	4	0	0	0	0%
November	2	4.333	-2.333	2.333	5.444	116.667%
December	2	2.667	-0.667	.667	.444	33.333%
TOTALS	48		-2	23.333	81.111	601.825%
AVERAGE	4		-0.2	2.333	8.111	60.183%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.184	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7	3.167	3.833	3.833	14.694	54.762%
May	10	5.167	4.833	4.833	23.361	48.333%
June	4	7.833	-3.833	3.833	14.694	95.833%
July	3	6.5	-3.5	3.5	12.25	116.667%
August	2	4.5	-2.5	2.5	6.25	125%
September	5	2.667	2.333	2.333	5.444	46.667%
October	4	3.667	-.333	.333	.111	8.333%
November	2	4	-2	2	4	100%
December	2	3.167	-1.167	1.167	1.361	58.333%
TOTALS	48		-1.667	24.333	82.167	653.929%
AVERAGE	4		-0.185	2.704	9.13	72.659%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.426	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10	4.7	5.3	5.3	28.09	53%
June	4	7.1	-3.1	3.1	9.61	77.5%
July	3	6.3	-3.3	3.3	10.89	110%
August	2	5.1	-3.1	3.1	9.61	155%
September	5	3.5	1.5	1.5	2.25	30%
October	4	3.6	-.4	.4	.16	10%
November	2	3.8	-1.8	1.8	3.24	90%
December	2	3.2	-1.2	1.2	1.44	60%
TOTALS	48		-5.3	19.7	65.29	585.5%
AVERAGE	4		-0.662	2.463	8.161	73.188%
Next period forecast		2.7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.299	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4	6.467	-2.467	2.467	6.084	61.667%
July	3	6.067	-3.067	3.067	9.404	102.222%
August	2	5.2	-3.2	3.2	10.24	160%
September	5	4.067	-.933	.933	.871	18.667%
October	4	4	0	0	0	0%
November	2	3.733	-1.733	1.733	3.004	86.667%
December	2	3.2	-1.2	1.2	1.44	60%
TOTALS	48		-10.733	12.6	31.044	489.222%
AVERAGE	4		-1.533	1.8	4.435	69.889%
Next period forecast		2.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.492	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3	5.762	-2.762	2.762	7.628	92.063%
August	2	5.19	-3.19	3.19	10.179	159.524%
September	5	4.286	.714	.714	.51	14.286%
October	4	4.333	-.333	.333	.111	8.333%
November	2	4	-2	2	4	100%
December	2	3.238	-1.238	1.238	1.533	61.905%
TOTALS	48		-8.81	10.238	23.961	436.111%
AVERAGE	4		-1.468	1.706	3.994	72.685%
Next period forecast		2.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.448	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2	5.071	-3.071	3.071	9.434	153.571%
September	5	4.393	-.607	.607	.369	12.143%
October	4	4.464	-.464	.464	.216	11.607%
November	2	4.25	-2.25	2.25	5.063	112.5%
December	2	3.5	-1.5	1.5	2.25	75%
TOTALS	48		-6.679	7.893	17.33	364.821%
AVERAGE	4		-1.336	1.579	3.466	72.964%
Next period forecast		2.929	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.403	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2					
September	5	4.389	-.611	.611	.373	12.222%
October	4	4.528	-.528	.528	.279	13.194%
November	2	4.361	-2.361	2.361	5.575	118.056%
December	2	3.75	-1.75	1.75	3.062	87.5%
TOTALS	48		-4.028	5.25	9.289	230.972%
AVERAGE	4		-1.007	1.313	2.322	57.743%
Next period forecast		3.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.155	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2					
September	5					
October	4	4.511	-.511	.511	.261	12.778%
November	2	4.422	-2.422	2.422	5.867	121.111%
December	2	3.889	-1.889	1.889	3.568	94.444%
TOTALS	48		-4.822	4.822	9.696	228.333%
AVERAGE	4		-1.607	1.607	3.232	76.111%
Next period forecast		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.114	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	7					
May	10					
June	4					
July	3					
August	2					
September	5					
October	4					
November	2	4.418	-2.418	2.418	5.848	120.909%
December	2	3.982	-1.982	1.982	3.928	99.091%
TOTALS	48		-4.4	4.4	9.775	220%
AVERAGE	4		-2.2	2.2	4.888	110%
Next period forecast		3.545	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Susralfa Suspensi 500 mg/5 ml 100 ml

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45	41.333	3.667	3.667	13.444	8.148%
April	42	44	-2	2	4	4.762%
May	40	43	-3	3	9	7.5%
June	43	40.667	2.333	2.333	5.444	5.426%
July	42	42	0	0	0	0%
August	39	42.333	-3.333	3.333	11.111	8.547%
September	36	40	-4	4	16	11.111%
October	40	37	3	3	9	7.5%
November	41	38.667	2.333	2.333	5.444	5.691%
December	40	40.667	-.667	.667	.444	1.667%
TOTALS	490		-1.667	24.333	73.889	60.352%
AVERAGE	40.833		-.167	2.433	7.389	6.035%
Next period forecast		40.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.039	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42	43.167	-1.167	1.167	1.361	2.778%
May	40	43	-3	3	9	7.5%
June	43	41.5	1.5	1.5	2.25	3.488%
July	42	41.833	.167	.167	.028	.397%
August	39	42	-3	3	9	7.692%
September	36	40.667	-4.667	4.667	21.778	12.963%
October	40	38	2	2	4	5%
November	41	38.5	2.5	2.5	6.25	6.098%
December	40	39.833	.167	.167	.028	.417%
TOTALS	490		-5.5	18.167	53.694	46.332%
AVERAGE	40.833		-.611	2.019	5.966	5.148%
Next period forecast		40.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.77	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40	42.7	-2.7	2.7	7.29	6.75%
June	43	41.8	1.2	1.2	1.44	2.791%
July	42	42.1	-.1	.1	.01	.238%
August	39	41.9	-2.9	2.9	8.41	7.436%
September	36	40.8	-4.8	4.8	23.04	13.333%
October	40	38.8	1.2	1.2	1.44	3%
November	41	38.8	2.2	2.2	4.84	5.366%
December	40	39.5	-.5	.5	.25	1.25%
TOTALS	490		-5.4	15.6	46.72	40.164%
AVERAGE	40.833		-.675	1.95	5.84	5.02%
Next period forecast		39.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.79	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43	41.8	1.2	1.2	1.44	2.791%
July	42	42.2	-.2	.2	.04	.476%
August	39	42.067	-3.067	3.067	9.404	7.863%
September	36	40.933	-4.933	4.933	24.338	13.704%
October	40	39.2	.8	.8	.64	2%
November	41	39.2	1.8	1.8	3.24	4.39%
December	40	39.533	.467	.467	.218	1.167%
TOTALS	490		-3.933	12.467	39.32	32.391%
AVERAGE	40.833		-.562	1.781	5.617	4.627%
Next period forecast		39.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.804	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42	42.143	-.143	.143	.02	.34%
August	39	42.143	-3.143	3.143	9.878	8.059%
September	36	41.19	-5.19	5.19	26.941	14.418%
October	40	39.524	.476	.476	.227	1.19%
November	41	39.429	1.571	1.571	2.469	3.833%
December	40	39.714	.286	.286	.082	.714%
TOTALS	490		-6.143	10.81	39.617	28.554%
AVERAGE	40.833		-1.024	1.802	6.603	4.759%
Next period forecast		39.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.147	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39	42.107	-3.107	3.107	9.654	7.967%
September	36	41.357	-5.357	5.357	28.699	14.881%
October	40	39.893	.107	.107	.011	.268%
November	41	39.643	1.357	1.357	1.842	3.31%
December	40	39.821	.179	.179	.032	.446%
TOTALS	490		-6.821	10.107	40.239	26.872%
AVERAGE	40.833		-1.364	2.021	8.048	5.374%
Next period forecast		39.786	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.662	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39					
September	36	41.417	-5.417	5.417	29.34	15.046%
October	40	40.167	-.167	.167	.028	.417%
November	41	39.917	1.083	1.083	1.174	2.642%
December	40	39.944	.056	.056	.003	.139%
TOTALS	490		-4.444	6.722	30.545	18.244%
AVERAGE	40.833		-1.111	1.681	7.636	4.561%
Next period forecast		39.861	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.908	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39					
September	36					
October	40	40.333	-.333	.333	.111	.833%
November	41	40.133	.867	.867	.751	2.114%
December	40	40.133	-.133	.133	.018	.333%
TOTALS	490		.4	1.333	.88	3.28%
AVERAGE	40.833		.133	.444	.293	1.093%
Next period forecast		39.956	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.938	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42					
March	45					
April	42					
May	40					
June	43					
July	42					
August	39					
September	36					
October	40					
November	41	40.273	.727	.727	.529	1.774%
December	40	40.291	-.291	.291	.085	.727%
TOTALS	490		.436	1.018	.614	2.501%
AVERAGE	40.833		.218	.509	.307	1.251%
Next period forecast		40.109	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8	6.667	1.333	1.333	1.778	16.667%
April	9	7.333	1.667	1.667	2.778	18.519%
May	10	8.667	1.333	1.333	1.778	13.333%
June	11	9.667	1.333	1.333	1.778	12.121%
July	5	10.667	-5.667	5.667	32.111	113.333%
August	8	7	1	1	1	12.5%
September	7	7	0	0	0	0%
October	8	7.333	.667	.667	.444	8.333%
November	7	7.667	-.667	.667	.444	9.524%
December	10	7.333	2.667	2.667	7.111	26.667%
TOTALS	97		3.667	16.333	49.222	230.997%
AVERAGE	8.083		.367	1.633	4.922	23.1%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.48	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9	7.333	1.667	1.667	2.778	18.519%
May	10	8.167	1.833	1.833	3.361	18.333%
June	11	9.333	1.667	1.667	2.778	15.152%
July	5	10.333	-5.333	5.333	28.444	106.667%
August	8	7.833	.167	.167	.028	2.083%
September	7	7.5	-.5	.5	.25	7.143%
October	8	7	1	1	1	12.5%
November	7	7.667	-.667	.667	.444	9.524%
December	10	7.333	2.667	2.667	7.111	26.667%
TOTALS	97		2.5	15.5	46.194	216.587%
AVERAGE	8.083		.278	1.722	5.133	24.065%
Next period forecast		8.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.569	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10	8	2	2	4	20%
June	11	8.9	2.1	2.1	4.41	19.091%
July	5	10	-5	5	25	100%
August	8	8.2	-.2	.2	.04	2.5%
September	7	7.9	-.9	.9	.81	12.857%
October	8	7.3	.7	.7	.49	8.75%
November	7	7.4	-.4	.4	.16	5.714%
December	10	7.4	2.6	2.6	6.76	26%
TOTALS	97		.9	13.9	41.67	194.912%
AVERAGE	8.083		.113	1.738	5.209	24.364%
Next period forecast		8.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.635	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11	8.667	2.333	2.333	5.444	21.212%
July	5	9.6	-4.6	4.6	21.16	92%
August	8	8.333	-.333	.333	.111	4.167%
September	7	8.133	-1.133	1.133	1.284	16.19%
October	8	7.6	.4	.4	.16	5%
November	7	7.533	-.533	.533	.284	7.619%
December	10	7.267	2.733	2.733	7.471	27.333%
TOTALS	97		-1.133	12.067	35.916	173.522%
AVERAGE	8.083		-.162	1.724	5.131	24.789%
Next period forecast		8.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.68	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5	9.333	-4.333	4.333	18.778	86.667%
August	8	8.286	-.286	.286	.082	3.571%
September	7	8.238	-1.238	1.238	1.533	17.687%
October	8	7.81	.19	.19	.036	2.381%
November	7	7.714	-.714	.714	.51	10.204%
December	10	7.381	2.619	2.619	6.859	26.19%
TOTALS	97		-3.762	9.381	27.798	146.701%
AVERAGE	8.083		-.627	1.563	4.633	24.45%
Next period forecast		8.048	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.636	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8	8.25	-.25	.25	.063	3.125%
September	7	8.214	-1.214	1.214	1.474	17.347%
October	8	7.929	.071	.071	.005	.893%
November	7	7.857	-.857	.857	.735	12.245%
December	10	7.536	2.464	2.464	6.073	24.643%
TOTALS	97		.214	4.857	8.349	58.253%
AVERAGE	8.083		.043	.971	1.67	11.651%
Next period forecast		8.036	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.668	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8					
September	7	8.194	-1.194	1.194	1.427	17.064%
October	8	7.944	.056	.056	.003	.694%
November	7	7.944	-.944	.944	.892	13.492%
December	10	7.667	2.333	2.333	5.444	23.333%
TOTALS	97		.25	4.528	7.766	54.583%
AVERAGE	8.083		.062	1.132	1.942	13.646%
Next period forecast		8.083	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.971	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8					
September	7					
October	8	7.956	.044	.044	.002	.556%
November	7	7.956	-.956	.956	.913	13.651%
December	10	7.756	2.244	2.244	5.038	22.444%
TOTALS	97		1.333	3.244	5.953	36.651%
AVERAGE	8.083		.444	1.081	1.984	12.217%
Next period forecast		8.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.44	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6					
March	8					
April	9					
May	10					
June	11					
July	5					
August	8					
September	7					
October	8					
November	7	7.964	-.964	.964	.929	13.766%
December	10	7.782	2.218	2.218	4.92	22.182%
TOTALS	97		1.255	3.182	5.849	35.948%
AVERAGE	8.083		.627	1.591	2.924	17.974%
Next period forecast		8.164	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

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	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2	2.333	-0.333	.333	.111	16.667%
April	2	2.333	-0.333	.333	.111	16.667%
May	3	2	1	1	1	33.333%
June	1	2.667	-1.667	1.667	2.778	166.667%
July	1	1.667	-0.667	.667	.444	66.667%
August	3	1	2	2	4	66.667%
September	5	2.333	2.667	2.667	7.111	53.333%
October	4	4.333	-0.333	.333	.111	8.333%
November	6	4.333	1.667	1.667	2.778	27.778%
December	3	5.333	-2.333	2.333	5.444	77.778%
TOTALS	34		1.667	13	23.889	533.889%
AVERAGE	2.833		.167	1.3	2.389	53.389%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.728	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2	2.167	-.167	.167	.028	8.333%
May	3	2.167	.833	.833	.694	27.778%
June	1	2.5	-1.5	1.5	2.25	150%
July	1	1.833	-.833	.833	.694	83.333%
August	3	1.333	1.667	1.667	2.778	55.556%
September	5	2	3	3	9	60%
October	4	3.667	-.333	.333	.111	8.333%
November	6	4.167	1.833	1.833	3.361	30.556%
December	3	5.167	-2.167	2.167	4.694	72.222%
TOTALS	34		3	12.333	23.611	496.111%
AVERAGE	2.833		.333	1.37	2.623	55.123%
Next period forecast		4.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.837	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3	2.1	-.9	.9	.81	30%
June	1	2.5	-1.5	1.5	2.25	150%
July	1	1.9	-.9	.9	.81	90%
August	3	1.5	1.5	1.5	2.25	50%
September	5	2	3	3	9	60%
October	4	3.2	-.8	.8	.64	20%
November	6	3.8	2.2	2.2	4.84	36.667%
December	3	4.9	-1.9	1.9	3.61	63.333%
TOTALS	34		4.1	12.7	24.21	500%
AVERAGE	2.833		.512	1.588	3.026	62.5%
Next period forecast		4.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.009	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1	2.4	-1.4	1.4	1.96	140%
July	1	2	-1	1	1	100%
August	3	1.6	1.4	1.4	1.96	46.667%
September	5	2	3	3	9	60%
October	4	3	1	1	1	25%
November	6	3.467	2.533	2.533	6.418	42.222%
December	3	4.533	-1.533	1.533	2.351	51.111%
TOTALS	34		4	11.867	23.689	465%
AVERAGE	2.833		.571	1.695	3.384	66.429%
Next period forecast		4.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.177	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1	2	-1	1	1	100%
August	3	1.714	1.286	1.286	1.653	42.857%
September	5	2	3	3	9	60%
October	4	2.857	1.143	1.143	1.306	28.571%
November	6	3.286	2.714	2.714	7.367	45.238%
December	3	4.19	-1.19	1.19	1.417	39.683%
TOTALS	34		5.952	10.333	21.744	316.349%
AVERAGE	2.833		.992	1.722	3.624	52.725%
Next period forecast		4.095	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.332	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3	1.75	1.25	1.25	1.563	41.667%
September	5	2.036	2.964	2.964	8.787	59.286%
October	4	2.75	1.25	1.25	1.563	31.25%
November	6	3.143	2.857	2.857	8.163	47.619%
December	3	3.964	-.964	.964	.93	32.143%
TOTALS	34		7.357	9.286	21.005	211.964%
AVERAGE	2.833		1.471	1.857	4.201	42.393%
Next period forecast		3.893	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.646	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3					
September	5	2.028	2.972	2.972	8.834	59.444%
October	4	2.694	1.306	1.306	1.704	32.639%
November	6	3.028	2.972	2.972	8.834	49.537%
December	3	3.778	-.778	.778	.605	25.926%
TOTALS	34		6.472	8.028	19.978	167.546%
AVERAGE	2.833		1.618	2.007	4.994	41.887%
Next period forecast		3.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.161	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3					
September	5					
October	4	2.622	1.378	1.378	1.898	34.444%
November	6	2.956	3.044	3.044	9.269	50.741%
December	3	3.622	-.622	.622	.387	20.741%
TOTALS	34		3.8	5.044	11.554	105.926%
AVERAGE	2.833		1.267	1.681	3.851	35.309%
Next period forecast		3.622	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.399	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3					
March	2					
April	2					
May	3					
June	1					
July	1					
August	3					
September	5					
October	4					
November	6	2.873	3.127	3.127	9.78	52.121%
December	3	3.509	-.509	.509	.259	16.97%
TOTALS	34		2.618	3.636	10.039	69.091%
AVERAGE	2.833		1.309	1.818	5.02	34.545%
Next period forecast		3.509	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50	55.333	-5.333	5.333	28.444	10.667%
April	48	52	-4	4	16	8.333%
May	60	48.667	11.333	11.333	128.444	18.889%
June	55	56	-1	1	1	1.818%
July	53	56.667	-3.667	3.667	13.444	6.918%
August	54	53.667	.333	.333	.111	.617%
September	50	53.667	-3.667	3.667	13.444	7.333%
October	56	51.333	4.667	4.667	21.778	8.333%
November	47	54	-7	7	49	14.894%
December	49	50	-1	1	1	2.041%
TOTALS	632		-9.333	42	272.667	79.844%
AVERAGE	52.667		-0.933	4.2	27.267	7.984%
Next period forecast		48.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.838	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48	52.667	-4.667	4.667	21.778	9.722%
May	60	50	10	10	100	16.667%
June	55	54.333	.667	.667	.444	1.212%
July	53	55.5	-2.5	2.5	6.25	4.717%
August	54	54.833	-.833	.833	.694	1.543%
September	50	53.833	-3.833	3.833	14.694	7.667%
October	56	51.833	4.167	4.167	17.361	7.44%
November	47	53.667	-6.667	6.667	44.444	14.184%
December	49	50.5	-1.5	1.5	2.25	3.061%
TOTALS	632		-5.167	34.833	207.917	66.214%
AVERAGE	52.667		-0.574	3.87	23.102	7.357%
Next period forecast		49.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.45	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60	50.8	9.2	9.2	84.64	15.333%
June	55	54	1	1	1	1.818%
July	53	54.6	-1.6	1.6	2.56	3.019%
August	54	54.5	-.5	.5	.25	.926%
September	50	54.5	-4.5	4.5	20.25	9%
October	56	52.3	3.7	3.7	13.69	6.607%
November	47	53.5	-6.5	6.5	42.25	13.83%
December	49	51	-2	2	4	4.082%
TOTALS	632		-1.2	29	168.64	54.615%
AVERAGE	52.667		-0.15	3.625	21.08	6.827%
Next period forecast		49.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.302	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55	53.867	1.133	1.133	1.284	2.061%
July	53	54.333	-1.333	1.333	1.778	2.516%
August	54	54.067	-.067	.067	.004	.123%
September	50	54.333	-4.333	4.333	18.778	8.667%
October	56	53	3	3	9	5.357%
November	47	53.533	-6.533	6.533	42.684	13.901%
December	49	51.333	-2.333	2.333	5.444	4.762%
TOTALS	632		-10.467	18.733	78.973	37.386%
AVERAGE	52.667		-1.495	2.676	11.282	5.341%
Next period forecast		50.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.974	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53	54.19	-1.19	1.19	1.417	2.246%
August	54	53.952	.048	.048	.002	.088%
September	50	54.048	-4.048	4.048	16.383	8.095%
October	56	53.095	2.905	2.905	8.438	5.187%
November	47	53.857	-6.857	6.857	47.02	14.59%
December	49	51.667	-2.667	2.667	7.111	5.442%
TOTALS	632		-11.81	17.714	80.372	35.649%
AVERAGE	52.667		-1.968	2.952	13.395	5.941%
Next period forecast		50.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.483	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54	53.893	.107	.107	.011	.198%
September	50	53.964	-3.964	3.964	15.716	7.929%
October	56	53.036	2.964	2.964	8.787	5.293%
November	47	53.821	-6.821	6.821	46.532	14.514%
December	49	52.143	-3.143	3.143	9.878	6.414%
TOTALS	632		-10.857	17	80.924	34.348%
AVERAGE	52.667		-2.171	3.4	16.185	6.87%
Next period forecast		51	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.194	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54					
September	50	53.917	-3.917	3.917	15.34	7.833%
October	56	53.083	2.917	2.917	8.507	5.208%
November	47	53.694	-6.694	6.694	44.816	14.244%
December	49	52.306	-3.306	3.306	10.927	6.746%
TOTALS	632		-11	16.833	79.589	34.031%
AVERAGE	52.667		-2.75	4.208	19.897	8.508%
Next period forecast		51.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.308	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54					
September	50					
October	56	53.133	2.867	2.867	8.218	5.119%
November	47	53.667	-6.667	6.667	44.444	14.184%
December	49	52.356	-3.356	3.356	11.26	6.848%
TOTALS	632		-7.156	12.889	63.922	26.152%
AVERAGE	52.667		-2.385	4.296	21.307	8.717%
Next period forecast		51.644	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.995	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56					
March	50					
April	48					
May	60					
June	55					
July	53					
August	54					
September	50					
October	56					
November	47	53.655	-6.655	6.655	44.283	14.159%
December	49	52.455	-3.455	3.455	11.934	7.05%
TOTALS	632		-10.109	10.109	56.217	21.209%
AVERAGE	52.667		-0.555	5.055	28.108	10.604%
Next period forecast		51.745	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30	30.333	-0.333	0.333	.111	1.111%
April	35	30.667	4.333	4.333	18.778	12.381%
May	28	33.333	-5.333	5.333	28.444	19.048%
June	30	30.333	-0.333	0.333	.111	1.111%
July	29	29.333	-0.333	0.333	.111	1.149%
August	35	29.333	5.667	5.667	32.111	16.19%
September	33	33	0	0	0	0%
October	30	33.667	-3.667	3.667	13.444	12.222%
November	32	31	1	1	1	3.125%
December	29	31.333	-2.333	2.333	5.444	8.046%
TOTALS	370		-1.333	23.333	99.556	74.384%
AVERAGE	30.833		-0.133	2.333	9.956	7.438%
Next period forecast		30	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.528	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35	30.167	4.833	4.833	23.361	13.81%
May	28	32.833	-4.833	4.833	23.361	17.262%
June	30	30.667	-0.667	0.667	.444	2.222%
July	29	30.167	-1.167	1.167	1.361	4.023%
August	35	29.167	5.833	5.833	34.028	16.667%
September	33	32.167	0.833	0.833	.694	2.525%
October	30	33	-3	3	9	10%
November	32	31.833	0.167	0.167	.028	.521%
December	29	31.5	-2.5	2.5	6.25	8.621%
TOTALS	370		-5	23.833	98.528	75.65%
AVERAGE	30.833		-0.56	2.648	10.948	8.406%
Next period forecast		30.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.752	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28	32.1	-4.1	4.1	16.81	14.643%
June	30	30.9	-0.9	0.9	.81	3%
July	29	30.4	-1.4	1.4	1.96	4.828%
August	35	29.7	5.3	5.3	28.09	15.143%
September	33	31.5	1.5	1.5	2.25	4.545%
October	30	32.5	-2.5	2.5	6.25	8.333%
November	32	31.8	0.2	0.2	.04	.625%
December	29	31.9	-2.9	2.9	8.41	10%
TOTALS	370		-4.8	18.8	64.62	61.177%
AVERAGE	30.833		-0.6	2.35	8.077	7.64%
Next period forecast		30.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.282	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30	30.733	-0.733	0.733	.538	2.444%
July	29	30.6	-1.6	1.6	2.56	5.517%
August	35	29.933	5.067	5.067	25.671	14.476%
September	33	31.467	1.533	1.533	2.351	4.646%
October	30	32	-2	2	4	6.667%
November	32	31.667	0.333	0.333	.111	1.042%
December	29	31.867	-2.867	2.867	8.218	9.885%
TOTALS	370		-2.67	14.133	43.449	44.678%
AVERAGE	30.833		-0.38	2.019	6.207	6.383%
Next period forecast		30.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.948	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29	30.524	-1.524	1.524	2.322	5.255%
August	35	30.143	4.857	4.857	23.592	13.878%
September	33	31.381	1.619	1.619	2.621	4.906%
October	30	31.905	-1.905	1.905	3.628	6.349%
November	32	31.429	0.571	0.571	.327	1.786%
December	29	31.762	-2.762	2.762	7.628	9.524%
TOTALS	370		8.57	13.238	40.118	41.697%
AVERAGE	30.833		1.43	2.206	6.686	6.95%
Next period forecast		31.048	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.167	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35	30.143	4.857	4.857	23.592	13.878%
September	33	31.357	1.643	1.643	2.699	4.978%
October	30	31.786	-1.786	1.786	3.189	5.952%
November	32	31.429	0.571	0.571	.327	1.786%
December	29	31.571	-2.571	2.571	6.612	8.867%
TOTALS	370		2.714	11.429	36.418	35.461%
AVERAGE	30.833		0.543	2.286	7.284	7.092%
Next period forecast		31.071	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.484	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35					
September	33	31.222	1.778	1.778	3.16	5.387%
October	30	31.722	-1.722	1.722	2.966	5.741%
November	32	31.389	0.611	0.611	.373	1.91%
December	29	31.556	-2.556	2.556	6.531	8.812%
TOTALS	370		-1.889	6.667	13.031	21.85%
AVERAGE	30.833		-0.472	1.667	3.258	5.462%
Next period forecast		31	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.553	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35					
September	33					
October	30	31.578	-1.578	1.578	2.489	5.259%
November	32	31.378	0.622	0.622	.387	1.944%
December	29	31.511	-2.511	2.511	6.306	8.659%
TOTALS	370		-3.467	4.711	9.182	15.863%
AVERAGE	30.833		-1.156	1.57	3.061	5.288%
Next period forecast		31.044	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.03	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32					
March	30					
April	35					
May	28					
June	30					
July	29					
August	35					
September	33					
October	30					
November	32	31.291	0.709	0.709	.503	2.216%
December	29	31.491	-2.491	2.491	6.205	8.589%
TOTALS	370		-1.782	3.2	6.707	10.805%
AVERAGE	30.833		-0.891	1.6	3.354	5.403%
Next period forecast		31.055	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28	25.333	2.667	2.667	7.111	9.524%
April	30	26.667	3.333	3.333	11.111	11.111%
May	31	29.333	1.667	1.667	2.778	5.376%
June	29	30.667	-1.667	1.667	2.778	5.747%
July	30	29.667	.333	.333	.111	1.111%
August	29	29.667	-.667	.667	.444	2.299%
September	30	29.333	.667	.667	.444	2.222%
October	28	29.667	-1.667	1.667	2.778	5.952%
November	30	28.667	1.333	1.333	1.778	4.444%
December	29	29.333	-.333	.333	.111	1.149%
TOTALS	346		5.667	14.333	29.444	48.937%
AVERAGE	28.833		.567	1.433	2.944	4.804%
Next period forecast		29.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.918	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30	26.667	3.333	3.333	11.111	11.111%
May	31	28.333	2.667	2.667	7.111	8.602%
June	29	30.167	-1.167	1.167	1.361	4.023%
July	30	29.833	.167	.167	.028	.556%
August	29	29.833	-.833	.833	.694	2.874%
September	30	29.333	.667	.667	.444	2.222%
October	28	29.667	-1.667	1.667	2.778	5.952%
November	30	28.833	1.167	1.167	1.361	3.889%
December	29	29.333	-.333	.333	.111	1.149%
TOTALS	346		4	12	25	40.378%
AVERAGE	28.833		.444	1.333	2.778	4.486%
Next period forecast		29.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.89	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31	28	3	3	9	9.677%
June	29	29.4	-.4	.4	.16	1.379%
July	30	29.7	.3	.3	.09	1%
August	29	29.9	-.9	.9	.81	3.103%
September	30	29.5	.5	.5	.25	1.667%
October	28	29.6	-1.6	1.6	2.56	5.714%
November	30	29	1	1	1	3.333%
December	29	29.3	-.3	.3	.09	1.034%
TOTALS	346		1.6	8	13.96	26.900%
AVERAGE	28.833		.2	1	1.745	3.364%
Next period forecast		29.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.525	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29	29	0	0	0	0%
July	30	29.267	.733	.733	.538	2.444%
August	29	29.8	-.8	.8	.64	2.759%
September	30	29.6	.4	.4	.16	1.333%
October	28	29.667	-1.667	1.667	2.778	5.952%
November	30	29.067	.933	.933	.871	3.111%
December	29	29.333	-.333	.333	.111	1.149%
TOTALS	346		-7.33	4.867	5.098	16.749%
AVERAGE	28.833		-1.05	.695	.728	2.393%
Next period forecast		29.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.01	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30	29	1	1	1	3.333%
August	29	29.476	-.476	.476	.227	1.642%
September	30	29.571	.429	.429	.184	1.429%
October	28	29.714	-1.714	1.714	2.939	6.122%
November	30	29.19	.81	.81	.655	2.698%
December	29	29.333	-.333	.333	.111	1.149%
TOTALS	346		-2.86	4.762	5.116	16.374%
AVERAGE	28.833		-.048	.794	.853	2.729%
Next period forecast		29.238	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.131	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29	29.25	-.25	.25	.063	.862%
September	30	29.357	.643	.643	.413	2.143%
October	28	29.679	-1.679	1.679	2.818	5.995%
November	30	29.286	.714	.714	.51	2.381%
December	29	29.393	-.393	.393	.154	1.355%
TOTALS	346		-.964	3.679	3.958	12.735%
AVERAGE	28.833		-.193	.736	.792	2.547%
Next period forecast		29.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.149	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29					
September	30	29.194	.806	.806	.649	2.685%
October	28	29.5	-1.5	1.5	2.25	5.357%
November	30	29.306	.694	.694	.482	2.315%
December	29	29.444	-.444	.444	.198	1.533%
TOTALS	346		-.444	3.444	3.579	11.89%
AVERAGE	28.833		-.111	.861	.895	2.972%
Next period forecast		29.306	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.338	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29					
September	30					
October	28	29.356	-1.356	1.356	1.838	4.841%
November	30	29.2	.8	.8	.64	2.667%
December	29	29.444	-.444	.444	.198	1.533%
TOTALS	346		-1	2.6	2.675	9.041%
AVERAGE	28.833		-.333	.867	.892	3.014%
Next period forecast		29.356	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.636	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24					
March	28					
April	30					
May	31					
June	29					
July	30					
August	29					
September	30					
October	28					
November	30	29.109	.891	.891	.794	2.97%
December	29	29.345	-.345	.345	.119	1.191%
TOTALS	346		.545	1.236	.913	4.161%
AVERAGE	28.833		.273	.618	.457	2.08%
Next period forecast		29.364	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19	21.333	-2.333	2.333	5.444	12.281%
April	25	20	5	5	25	20%
May	23	23	0	0	0	0%
June	20	23.667	-3.667	3.667	13.444	18.333%
July	26	21	5	5	25	19.231%
August	21	24	-3	3	9	14.286%
September	17	22.667	-5.667	5.667	32.111	33.333%
October	24	18.333	5.667	5.667	32.111	23.611%
November	20	21.667	-1.667	1.667	2.778	8.333%
December	21	21.333	-.333	.333	.111	1.587%
TOTALS	258		-1	32.333	145	150.996%
AVERAGE	21.5		-1	3.233	14.5	15.1%
Next period forecast		20.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.257	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20	22.4	-2.4	2.4	5.76	12%
July	26	21.8	4.2	4.2	17.64	16.154%
August	21	23.2	-2.2	2.2	4.84	10.476%
September	17	22.667	-5.667	5.667	32.111	33.333%
October	24	20.667	3.333	3.333	11.111	13.889%
November	20	21.533	-1.533	1.533	2.351	7.667%
December	21	21	0	0	0	0%
TOTALS	258		-4.267	19.333	73.813	93.519%
AVERAGE	21.5		-.61	2.762	10.545	13.36%
Next period forecast		20.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.842	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21					
September	17	22.389	-5.389	5.389	29.04	31.699%
October	24	21.278	2.722	2.722	7.41	11.343%
November	20	21.806	-1.806	1.806	3.26	9.028%
December	21	21.389	-.389	.389	.151	1.852%
TOTALS	258		-4.861	10.306	39.862	53.922%
AVERAGE	21.5		-1.215	2.576	9.965	13.48%
Next period forecast		21.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.464	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25	20.167	4.833	4.833	23.361	19.333%
May	23	22.5	-.5	.5	.25	2.174%
June	20	23	-3	3	9	15%
July	26	21.833	4.167	4.167	17.361	16.026%
August	21	23.5	-2.5	2.5	6.25	11.905%
September	17	22.5	-5.5	5.5	30.25	32.353%
October	24	19.833	4.167	4.167	17.361	17.361%
November	20	21.167	-1.167	1.167	1.361	5.833%
December	21	20.833	.167	.167	.028	.794%
TOTALS	258		1.667	26	105.222	120.779%
AVERAGE	21.5		.185	2.889	11.691	13.42%
Next period forecast		21.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.877	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26	21.714	4.286	4.286	18.367	16.484%
August	21	23	-2	2	4	9.524%
September	17	22.571	-5.571	5.571	31.041	32.773%
October	24	21.048	2.952	2.952	8.717	12.302%
November	20	21.619	-1.619	1.619	2.621	8.095%
December	21	21.095	-.095	.095	.009	.454%
TOTALS	258		-2.048	16.524	64.755	79.631%
AVERAGE	21.5		-.341	2.754	10.793	13.272%
Next period forecast		21	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.024	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21					
September	17					
October	24	21.311	2.689	2.689	7.23	11.204%
November	20	21.822	-1.822	1.822	3.32	9.111%
December	21	21.444	-.444	.444	.198	2.116%
TOTALS	258		.422	4.956	10.748	22.431%
AVERAGE	21.5		.141	1.652	3.583	7.477%
Next period forecast		21.311	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.278	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23	22.1	-.9	.9	.81	3.913%
June	20	22.7	-2.7	2.7	7.29	13.5%
July	26	21.8	4.2	4.2	17.64	16.154%
August	21	23.5	-2.5	2.5	6.25	11.905%
September	17	22.5	-5.5	5.5	30.25	32.353%
October	24	20.3	3.7	3.7	13.69	15.417%
November	20	21.5	-1.5	1.5	2.25	7.5%
December	21	20.7	.3	.3	.09	1.429%
TOTALS	258		-3.1	21.3	78.27	102.17%
AVERAGE	21.5		-.388	2.663	9.784	12.771%
Next period forecast		20.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.612	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21	22.786	-1.786	1.786	3.189	8.503%
September	17	22.5	-5.5	5.5	30.25	32.353%
October	24	21.179	2.821	2.821	7.96	11.756%
November	20	21.786	-1.786	1.786	3.189	8.929%
December	21	21.214	-.214	.214	.046	1.02%
TOTALS	258		-6.464	12.107	44.634	62.561%
AVERAGE	21.5		-1.293	2.421	8.927	12.512%
Next period forecast		21.071	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.857	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22					
March	19					
April	25					
May	23					
June	20					
July	26					
August	21					
September	17					
October	24					
November	20	21.8	-1.8	1.8	3.24	9%
December	21	21.491	-.491	.491	.241	2.338%
TOTALS	258		-2.291	2.291	3.481	11.338%
AVERAGE	21.5		-1.145	1.145	1.74	5.669%
Next period forecast		21.364	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 5

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 8

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 3

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 6

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 9

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 4

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 7

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.

Periode 10

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months Jan-Dec, TOTALS, AVERAGE, and Next period forecast.



2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4	4	0	0	0	0%
April	7	4.333	2.667	2.667	7.111	38.095%
May	2	6	-4	4	16	200%
June	1	3.667	-2.667	2.667	7.111	266.667%
July	3	1.333	1.667	1.667	2.778	55.556%
August	6	2.333	3.667	3.667	13.444	61.111%
September	9	5	4	4	16	44.444%
October	4	8	-4	4	16	100%
November	3	5.667	-2.667	2.667	7.111	88.889%
December	2	3.333	-1.333	1.333	1.778	66.667%
TOTALS	48		-2.667	26.667	87.333	921.429%
AVERAGE	4		-2.67	2.667	8.733	92.143%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.304	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7	4	3	3	9	42.857%
May	2	5.667	-3.667	3.667	13.444	183.333%
June	1	4	-3	3	9	300%
July	3	2.333	.667	.667	.444	22.222%
August	6	2.167	3.833	3.833	14.694	63.889%
September	9	4.167	4.833	4.833	23.361	53.704%
October	4	7	-3	3	9	75%
November	3	6	-3	3	9	100%
December	2	4.333	-2.333	2.333	5.444	116.667%
TOTALS	48		-2.667	27.333	93.389	957.672%
AVERAGE	4		-2.96	3.037	10.377	106.408%
Next period forecast		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.653	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2	5.2	-3.2	3.2	10.24	160%
June	1	4.2	-3.2	3.2	10.24	320%
July	3	2.8	.2	.2	.04	6.667%
August	6	2.6	3.4	3.4	11.56	56.667%
September	9	3.7	5.3	5.3	28.09	58.889%
October	4	6.1	-2.1	2.1	4.41	52.5%
November	3	5.8	-2.8	2.8	7.84	93.333%
December	2	4.8	-2.8	2.8	7.84	140%
TOTALS	48		-5.2	23	80.26	888.056%
AVERAGE	4		-.65	2.875	10.033	111.007%
Next period forecast		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.657	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1	4.133	-3.133	3.133	9.818	313.333%
July	3	3.133	-.133	.133	.018	4.444%
August	6	2.867	3.133	3.133	9.818	52.222%
September	9	3.733	5.267	5.267	27.738	58.519%
October	4	5.467	-1.467	1.467	2.151	36.667%
November	3	5.4	-2.4	2.4	5.76	80%
December	2	4.867	-2.867	2.867	8.218	143.333%
TOTALS	48		-1.6	18.4	63.52	688.519%
AVERAGE	4		-.229	2.629	9.074	98.36%
Next period forecast		3.867	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.564	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3	3.238	-.238	.238	.057	7.937%
August	6	3.095	2.905	2.905	8.438	48.413%
September	9	3.762	5.238	5.238	27.438	58.201%
October	4	5.238	-1.238	1.238	1.533	30.952%
November	3	5.048	-2.048	2.048	4.193	68.254%
December	2	4.714	-2.714	2.714	7.367	135.714%
TOTALS	48		1.905	14.381	49.025	349.471%
AVERAGE	4		.317	2.397	8.171	58.245%
Next period forecast		4.048	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.501	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6	3.179	2.821	2.821	7.96	47.024%
September	9	3.821	5.179	5.179	26.818	57.54%
October	4	5.071	-1.071	1.071	1.148	26.786%
November	3	4.929	-1.929	1.929	3.719	64.286%
December	2	4.536	-2.536	2.536	6.43	126.786%
TOTALS	48		2.464	13.536	46.075	322.421%
AVERAGE	4		.493	2.707	9.215	64.484%
Next period forecast		4.036	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.919	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6					
September	9	3.806	5.194	5.194	26.982	57.716%
October	4	4.972	-.972	.972	.945	24.306%
November	3	4.833	-1.833	1.833	3.361	61.111%
December	2	4.5	-2.5	2.5	6.25	125%
TOTALS	48		-.111	10.5	37.539	268.133%
AVERAGE	4		-.028	2.625	9.385	67.033%
Next period forecast		3.972	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.332	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6					
September	9					
October	4	4.844	-.844	.844	.713	21.111%
November	3	4.778	-1.778	1.778	3.16	59.259%
December	2	4.467	-2.467	2.467	6.084	123.333%
TOTALS	48		-5.089	5.089	9.958	203.704%
AVERAGE	4		-1.696	1.696	3.319	67.901%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.156	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5					
March	4					
April	7					
May	2					
June	1					
July	3					
August	6					
September	9					
October	4					
November	3	4.691	-1.691	1.691	2.859	56.364%
December	2	4.455	-2.455	2.455	6.025	122.727%
TOTALS	48		-4.145	4.145	8.884	179.091%
AVERAGE	4		-2.073	2.073	4.442	89.545%
Next period forecast		4.018	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3	3.333	-.333	.333	.111	11.111%
April	4	3.333	.667	.667	.444	16.667%
May	3	3.667	-.667	.667	.444	22.222%
June	6	3.333	2.667	2.667	7.111	44.444%
July	5	5	0	0	0	0%
August	3	5.333	-2.333	2.333	5.444	77.778%
September	4	3.667	.333	.333	.111	8.333%
October	6	3.667	2.333	2.333	5.444	38.889%
November	7	5.333	1.667	1.667	2.778	23.81%
December	3	6.667	-3.667	3.667	13.444	122.222%
TOTALS	50		.667	14.667	35.333	365.476%
AVERAGE	4.167		.067	1.467	3.533	36.548%
Next period forecast		4.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.102	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4	3.167	.833	.833	.694	20.833%
May	3	3.667	-.667	.667	.444	22.222%
June	6	3.333	2.667	2.667	7.111	44.444%
July	5	4.667	.333	.333	.111	6.667%
August	3	5	-.2	.2	.4	66.667%
September	4	4.167	-.167	.167	.028	4.167%
October	6	3.833	2.167	2.167	4.694	36.111%
November	7	4.833	2.167	2.167	4.694	30.952%
December	3	6.167	-3.167	3.167	10.028	105.566%
TOTALS	50		2.167	14.167	31.806	337.619%
AVERAGE	4.167		.241	1.574	3.534	37.513%
Next period forecast		4.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.132	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3	3.5	-.5	.5	.25	16.667%
June	6	3.4	2.6	2.6	6.76	43.333%
July	5	4.4	-.6	.6	.36	12%
August	3	4.8	-1.8	1.8	3.24	60%
September	4	4.2	-.2	.2	.04	5%
October	6	4.1	1.9	1.9	3.61	31.667%
November	7	4.7	2.3	2.3	5.29	32.857%
December	3	5.7	-2.7	2.7	7.29	90%
TOTALS	50		2.2	12.6	26.84	291.524%
AVERAGE	4.167		.275	1.575	3.355	36.44%
Next period forecast		4.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.115	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6	3.333	2.667	2.667	7.111	44.444%
July	5	4.267	.733	.733	.538	14.667%
August	3	4.6	-1.6	1.6	2.56	53.333%
September	4	4.2	-.2	.2	.04	5%
October	6	4.133	1.867	1.867	3.484	31.111%
November	7	4.733	2.267	2.267	5.138	32.381%
December	3	5.467	-2.467	2.467	6.084	82.222%
TOTALS	50		3.267	11.8	24.956	263.159%
AVERAGE	4.167		.467	1.686	3.565	37.594%
Next period forecast		4.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.234	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5	4.095	.905	.905	.819	18.095%
August	3	4.476	-1.476	1.476	2.179	49.206%
September	4	4.143	-.143	.143	.02	3.571%
October	6	4.143	1.857	1.857	3.449	30.952%
November	7	4.667	2.333	2.333	5.444	33.333%
December	3	5.381	-2.381	2.381	5.669	79.365%
TOTALS	50		1.095	9.095	17.581	214.524%
AVERAGE	4.167		.183	1.516	2.93	35.754%
Next period forecast		4.762	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.096	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3	4.321	-1.321	1.321	1.746	44.048%
September	4	4.107	-.107	.107	.011	2.679%
October	6	4.107	1.893	1.893	3.583	31.548%
November	7	4.607	2.393	2.393	5.726	34.184%
December	3	5.25	-2.25	2.25	5.062	75%
TOTALS	50		.607	7.964	16.129	187.458%
AVERAGE	4.167		.121	1.593	3.226	37.491%
Next period forecast		4.786	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.319	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3					
September	4	4.028	-.028	.028	.001	.694%
October	6	4.083	1.917	1.917	3.674	31.944%
November	7	4.528	2.472	2.472	6.112	35.317%
December	3	5.139	-2.139	2.139	4.575	71.296%
TOTALS	50		2.222	6.556	14.361	139.253%
AVERAGE	4.167		.556	1.639	3.59	34.813%
Next period forecast		4.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.68	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3					
September	4					
October	6	4.022	1.978	1.978	3.912	32.963%
November	7	4.467	2.533	2.533	6.418	36.19%
December	3	5.022	-2.022	2.022	4.089	67.407%
TOTALS	50		2.489	6.533	14.419	136.561%
AVERAGE	4.167		.83	2.178	4.806	45.52%
Next period forecast		4.711	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.797	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4					
March	3					
April	4					
May	3					
June	6					
July	5					
August	3					
September	4					
October	6					
November	7	4.382	2.618	2.618	6.855	37.403%
December	3	4.927	-1.927	1.927	3.714	64.242%
TOTALS	50		.691	4.545	10.569	101.645%
AVERAGE	4.167		.345	2.273	5.285	50.823%
Next period forecast		4.655	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8	5.333	2.667	2.667	7.111	33.333%
April	5	7	-2	2	4	40%
May	8	6	2	2	4	25%
June	10	7	3	3	9	30%
July	4	9.333	-5.333	5.333	28.444	133.333%
August	6	6	0	0	0	0%
September	7	5.333	1.667	1.667	2.778	23.81%
October	8	6.667	1.333	1.333	1.778	16.667%
November	9	7.667	1.333	1.333	1.778	14.815%
December	6	8.667	-2.667	2.667	7.111	44.444%
TOTALS	82		2	22	66	361.402%
AVERAGE	6.833		.2	2.2	6.6	36.14%
Next period forecast		7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.872	

Periode 3

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5	6.667	-1.667	1.667	2.778	33.333%
May	8	6	2	2	4	25%
June	10	7	3	3	9	30%
July	4	8.5	-4.5	4.5	20.25	112.5%
August	6	6.667	-.667	.667	.444	11.111%
September	7	6	1	1	1	14.286%
October	8	6.167	1.833	1.833	3.361	22.917%
November	9	7.333	1.667	1.667	2.778	18.519%
December	6	8.333	-2.333	2.333	5.444	38.889%
TOTALS	82		.333	18.667	49.056	306.554%
AVERAGE	6.833		.037	2.074	5.451	34.062%
Next period forecast		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.647	

Periode 4

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8	6	2	2	4	25%
June	10	6.8	3.2	3.2	10.24	32%
July	4	8.2	-4.2	4.2	17.64	105%
August	6	6.7	-.7	.7	.49	11.667%
September	7	6.4	.6	.6	.36	8.571%
October	8	6.4	1.6	1.6	2.56	20%
November	9	6.9	2.1	2.1	4.41	23.333%
December	6	8	-2	2	4	33.333%
TOTALS	82		2.6	16.4	43.7	258.905%
AVERAGE	6.833		.325	2.05	5.463	32.363%
Next period forecast		7.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.699	

Periode 5

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10	6.667	3.333	3.333	11.111	33.333%
July	4	7.867	-3.867	3.867	14.951	96.667%
August	6	6.8	-.8	.8	.64	13.333%
September	7	6.467	.533	.533	.284	7.619%
October	8	6.6	1.4	1.4	1.96	17.5%
November	9	6.933	2.067	2.067	4.271	22.963%
December	6	7.6	-1.6	1.6	2.56	26.667%
TOTALS	82		1.067	13.6	35.778	218.082%
AVERAGE	6.833		.152	1.943	5.111	31.155%
Next period forecast		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.675	

Periode 6

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4	7.619	-3.619	3.619	13.098	90.476%
August	6	6.762	-.762	.762	.58	12.698%
September	7	6.571	.429	.429	.184	6.122%
October	8	6.619	1.381	1.381	1.907	17.262%
November	9	7	2	2	4	22.222%
December	6	7.524	-1.524	1.524	2.322	25.397%
TOTALS	82		-2.095	9.714	22.091	174.178%
AVERAGE	6.833		-.349	1.619	3.682	29.03%
Next period forecast		7.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.35	

Periode 7

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6	6.714	-.714	.714	.51	11.905%
September	7	6.571	.429	.429	.184	6.122%
October	8	6.679	1.321	1.321	1.746	16.518%
November	9	6.964	2.036	2.036	4.144	22.619%
December	6	7.5	-1.5	1.5	2.25	25%
TOTALS	82		1.571	6	8.834	82.164%
AVERAGE	6.833		.314	1.2	1.767	16.433%
Next period forecast		7.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.716	

Periode 8

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6					
September	7	6.556	.444	.444	.198	6.349%
October	8	6.667	1.333	1.333	1.778	16.667%
November	9	6.972	2.028	2.028	4.112	22.531%
December	6	7.417	-1.417	1.417	2.007	23.611%
TOTALS	82		2.389	5.222	8.094	69.158%
AVERAGE	6.833		.597	1.306	2.024	17.289%
Next period forecast		7.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.012	

Periode 9

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6					
September	7					
October	8	6.644	1.356	1.356	1.838	16.944%
November	9	6.933	2.067	2.067	4.271	22.963%
December	6	7.378	-1.378	1.378	1.898	22.963%
TOTALS	82		2.044	4.8	8.007	62.87%
AVERAGE	6.833		.681	1.6	2.669	20.957%
Next period forecast		7.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.83	

Periode 10

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	5					
March	8					
April	5					
May	8					
June	10					
July	4					
August	6					
September	7					
October	8					
November	9	6.891	2.109	2.109	4.448	23.434%
December	6	7.309	-1.309	1.309	1.714	21.818%
TOTALS	82		.8	3.418	6.162	45.253%
AVERAGE	6.833		.4	1.709	3.081	22.626%
Next period forecast		7.127	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45	41.333	3.667	3.667	13.444	8.148%
April	42	43.333	-1.333	1.333	1.778	3.175%
May	44	43	1	1	1	2.273%
June	50	43.333	6.667	6.667	44.444	13.333%
July	48	48	0	0	0	0%
August	39	48.667	-9.667	9.667	93.444	24.786%
September	40	42	-2	2	4	5%
October	43	39.667	3.333	3.333	11.111	7.752%
November	46	42	4	4	16	8.696%
December	44	45	-1	1	1	2.273%
TOTALS	525		4.667	32.667	186.222	75.435%
AVERAGE	43.75		.467	3.267	18.622	7.544%
Next period forecast		44.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.825	

Periode 5

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50	43.133	6.867	6.867	47.151	13.733%
July	48	45.467	2.533	2.533	6.418	5.278%
August	39	46.733	-7.733	7.733	59.804	19.829%
September	40	44.467	-4.467	4.467	19.951	11.167%
October	43	42.933	.067	.067	.004	.155%
November	46	42.533	3.467	3.467	12.018	7.536%
December	44	43.2	.8	.8	.64	1.818%
TOTALS	525		1.533	25.933	145.987	59.516%
AVERAGE	43.75		.219	3.705	20.855	8.502%
Next period forecast		43.467	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.403	

Periode 8

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39					
September	40	44.306	-4.306	4.306	18.538	10.764%
October	43	43.417	-.417	.417	.174	.969%
November	46	43.306	2.694	2.694	7.26	5.857%
December	44	43.778	.222	.222	.049	.505%
TOTALS	525		-1.806	7.639	26.021	18.095%
AVERAGE	43.75		-.451	1.91	6.505	4.524%
Next period forecast		43.778	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.607	

Periode 3

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42	43.167	-1.167	1.167	1.361	2.778%
May	44	42.667	1.333	1.333	1.778	3.03%
June	50	43.5	6.5	6.5	42.25	13%
July	48	46.667	1.333	1.333	1.778	2.778%
August	39	48	-9	9	81	23.077%
September	40	43.833	-3.833	3.833	14.694	9.583%
October	43	41	2	2	4	4.651%
November	46	41.333	4.667	4.667	21.778	10.145%
December	44	44	0	0	0	0%
TOTALS	525		1.833	29.833	168.639	69.042%
AVERAGE	43.75		.204	3.315	18.738	7.671%
Next period forecast		44.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.908	

Periode 6

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48	45.095	2.905	2.905	8.438	6.052%
August	39	46.19	-7.19	7.19	51.703	18.437%
September	40	44.524	-4.524	4.524	20.465	11.31%
October	43	43.19	-.19	.19	.036	.443%
November	46	42.952	3.048	3.048	9.288	6.625%
December	44	43.524	.476	.476	.227	1.082%
TOTALS	525		-5.476	18.333	90.156	43.949%
AVERAGE	43.75		-.913	3.056	15.026	7.325%
Next period forecast		43.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.748	

Periode 9

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39					
September	40					
October	43	43.444	-.444	.444	.198	1.034%
November	46	43.333	2.667	2.667	7.111	5.797%
December	44	43.844	.156	.156	.024	.354%
TOTALS	525		2.378	3.267	7.333	7.184%
AVERAGE	43.75		.793	1.089	2.444	2.395%
Next period forecast		43.822	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.708	

Periode 4

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44	42.7	1.3	1.3	1.69	2.955%
June	50	43.2	6.8	6.8	46.24	13.6%
July	48	46.1	1.9	1.9	3.61	3.958%
August	39	47.2	-8.2	8.2	67.24	21.026%
September	40	44.4	-4.4	4.4	19.36	11%
October	43	42.3	.7	.7	.49	1.628%
November	46	41.8	4.2	4.2	17.64	9.13%
December	44	43.2	.8	.8	.64	1.818%
TOTALS	525		3.1	28.3	156.91	65.115%
AVERAGE	43.75		.387	3.538	19.614	8.139%
Next period forecast		44	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.114	

Periode 7

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39	45.821	-6.821	6.821	46.532	17.491%
September	40	44.393	-4.393	4.393	19.297	10.982%
October	43	43.393	-.393	.393	.154	.914%
November	46	43.143	2.857	2.857	8.163	6.211%
December	44	43.714	.286	.286	.082	.649%
TOTALS	525		-8.464	14.75	74.228	36.247%
AVERAGE	43.75		-1.693	2.95	14.846	7.249%
Next period forecast		43.643	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.974	

Periode 10

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	44					
February	40					
March	45					
April	42					
May	44					
June	50					
July	48					
August	39					
September	40					
October	43					
November	46	43.364	2.636	2.636	6.95	5.731%
December	44	43.818	.182	.182	.033	.413%
TOTALS	525		2.818	2.818	6.983	6.144%
AVERAGE	43.75		1.409	1.409	3.492	3.072%
Next period forecast		43.873	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9	10.333	-1.333	1.333	1.778	14.815%
April	10	9.667	.333	.333	.111	3.333%
May	8	9.667	-1.667	1.667	2.778	20.833%
June	9	8.667	.333	.333	.111	3.704%
July	10	8.667	1.333	1.333	1.778	13.333%
August	12	9.667	2.333	2.333	5.444	19.444%
September	9	11.333	-2.333	2.333	5.444	25.926%
October	8	10	-2	2	4	25%
November	6	8.333	-2.333	2.333	5.444	38.889%
December	9	6.667	2.333	2.333	5.444	25.926%
TOTALS	110		-3	16.333	32.333	191.204%
AVERAGE	9.167		-3	1.633	3.233	19.12%
Next period forecast		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.01	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10	9.667	.333	.333	.111	3.333%
May	8	9.833	-1.833	1.833	3.361	22.917%
June	9	8.833	.167	.167	.028	1.852%
July	10	8.833	1.167	1.167	1.361	11.667%
August	12	9.333	2.667	2.667	7.111	22.222%
September	9	10.833	-1.833	1.833	3.361	20.37%
October	8	10.167	-2.167	2.167	4.694	27.083%
November	6	9	-3	3	9	50%
December	9	7.167	1.833	1.833	3.361	20.37%
TOTALS	110		-2.667	15	32.389	179.815%
AVERAGE	9.167		-.296	1.667	3.599	19.979%
Next period forecast		7.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.151	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8	9.8	-1.8	1.8	3.24	22.5%
June	9	9.1	-.1	.1	.01	1.111%
July	10	8.9	1.1	1.1	1.21	11%
August	12	9.3	2.7	2.7	7.29	22.5%
September	9	10.4	-1.4	1.4	1.96	15.556%
October	8	10.1	-2.1	2.1	4.41	26.25%
November	6	9.3	-3.3	3.3	10.89	55%
December	9	7.8	1.2	1.2	1.44	13.333%
TOTALS	110		-3.7	13.7	30.45	167.25%
AVERAGE	9.167		-.463	1.713	3.806	20.906%
Next period forecast		7.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.253	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9	9.2	-.2	.2	.04	2.222%
July	10	9.067	.933	.933	.871	9.333%
August	12	9.267	2.733	2.733	7.471	22.778%
September	9	10.2	-1.2	1.2	1.44	13.333%
October	8	9.933	-1.933	1.933	3.738	24.167%
November	6	9.4	-3.4	3.4	11.56	56.667%
December	9	8.2	.8	.8	.64	8.889%
TOTALS	110		-2.267	11.2	25.76	137.389%
AVERAGE	9.167		-.324	1.6	3.68	19.627%
Next period forecast		8.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.27	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10	9.143	.857	.857	.735	8.571%
August	12	9.333	2.667	2.667	7.111	22.222%
September	9	10.048	-1.048	1.048	1.098	11.64%
October	8	9.857	-1.857	1.857	3.449	23.214%
November	6	9.381	-3.381	3.381	11.431	56.349%
December	9	8.429	.571	.571	.327	6.349%
TOTALS	110		-2.19	10.381	24.15	128.347%
AVERAGE	9.167		-.365	1.73	4.025	21.391%
Next period forecast		8.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.457	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12	9.357	2.643	2.643	6.985	22.024%
September	9	10	-1	1	1	11.111%
October	8	9.786	-1.786	1.786	3.189	22.321%
November	6	9.393	-3.393	3.393	11.511	56.548%
December	9	8.536	.464	.464	.216	5.159%
TOTALS	110		-3.071	9.286	22.901	117.163%
AVERAGE	9.167		-.614	1.857	4.58	23.433%
Next period forecast		8.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.763	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12					
September	9	9.944	-.944	.944	.892	10.494%
October	8	9.778	-1.778	1.778	3.16	22.222%
November	6	9.389	-3.389	3.389	11.485	56.481%
December	9	8.639	.361	.361	.13	4.012%
TOTALS	110		-5.75	6.472	15.667	93.21%
AVERAGE	9.167		-1.438	1.618	3.917	23.302%
Next period forecast		8.639	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.799	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12					
September	9					
October	8	9.756	-1.756	1.756	3.082	21.944%
November	6	9.422	-3.422	3.422	11.712	57.037%
December	9	8.711	.289	.289	.083	3.21%
TOTALS	110		-4.889	5.467	14.877	82.191%
AVERAGE	9.167		-1.63	1.822	4.959	27.397%
Next period forecast		8.711	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.857	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	9					
February	11					
March	9					
April	10					
May	8					
June	9					
July	10					
August	12					
September	9					
October	8					
November	6	9.436	-3.436	3.436	11.809	57.273%
December	9	8.8	.2	.2	.04	2.222%
TOTALS	110		-3.236	3.636	11.849	59.495%
AVERAGE	9.167		-1.618	1.818	5.924	29.747%
Next period forecast		8.764	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1	2.667	-1.667	1.667	2.778	166.667%
April	1	1.667	-.667	.667	.444	66.667%
May	3	1	2	2	4	66.667%
June	6	2.333	3.667	3.667	13.444	61.111%
July	5	5	0	0	0	0%
August	3	5.333	-2.333	2.333	5.444	77.778%
September	2	3.667	-1.667	1.667	2.778	83.333%
October	5	2.333	2.667	2.667	7.111	53.333%
November	7	4	3	3	9	42.857%
December	10	6.333	3.667	3.667	13.444	36.667%
TOTALS	48		8.667	21.333	58.444	655.079%
AVERAGE	4		.867	2.133	5.844	65.508%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.703	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6	2	4	4	16	66.667%
July	5	3.333	1.667	1.667	2.778	33.333%
August	3	4.067	-1.067	1.067	1.138	35.556%
September	2	4	-2	2	4	100%
October	5	3.467	1.533	1.533	2.351	30.667%
November	7	3.867	3.133	3.133	9.818	44.762%
December	10	4.8	5.2	5.2	27.04	52%
TOTALS	48		12.467	18.6	63.124	362.984%
AVERAGE	4		1.781	2.657	9.018	51.855%
Next period forecast		6.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.553	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3					
September	2	3.472	-1.472	1.472	2.167	73.611%
October	5	3.25	1.75	1.75	3.063	35%
November	7	3.694	3.306	3.306	10.927	47.222%
December	10	4.528	5.472	5.472	29.945	54.722%
TOTALS	48		9.056	12	46.102	210.556%
AVERAGE	4		2.264	3	11.525	52.639%
Next period forecast		5.861	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.801	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1	1.833	-.833	.833	.694	83.333%
May	3	1.333	1.667	1.667	2.778	55.556%
June	6	2	4	4	16	66.667%
July	5	4.167	-.833	.833	.694	16.667%
August	3	5	-2	2	4	66.667%
September	2	4.167	-2.167	2.167	4.694	108.333%
October	5	2.833	2.167	2.167	4.694	43.333%
November	7	3.667	3.333	3.333	11.111	47.619%
December	10	5.5	4.5	4.5	20.25	45%
TOTALS	48		11.5	21.5	64.917	533.175%
AVERAGE	4		1.278	2.389	7.213	59.242%
Next period forecast		8.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.045	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5	3.143	1.857	1.857	3.449	37.143%
August	3	3.81	-.81	.81	.655	26.984%
September	2	3.762	-1.762	1.762	3.104	88.095%
October	5	3.429	1.571	1.571	2.469	31.429%
November	7	3.905	3.095	3.095	9.581	44.218%
December	10	4.762	5.238	5.238	27.438	52.381%
TOTALS	48		9.19	14.333	46.696	280.25%
AVERAGE	4		1.532	2.389	7.783	46.708%
Next period forecast		6.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.417	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3					
September	2					
October	5	3.178	1.822	1.822	3.32	36.444%
November	7	3.6	3.4	3.4	11.56	48.571%
December	10	4.356	5.644	5.644	31.86	56.444%
TOTALS	48		10.867	10.867	46.74	141.46%
AVERAGE	4		3.622	3.622	15.58	47.153%
Next period forecast		5.622	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.837	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3	1.5	1.5	1.5	2.25	50%
June	6	2	4	4	16	66.667%
July	5	3.6	1.4	1.4	1.96	28%
August	3	4.5	-1.5	1.5	2.25	50%
September	2	4.2	-2.2	2.2	4.84	110%
October	5	3.3	1.7	1.7	2.89	34%
November	7	3.7	3.3	3.3	10.89	47.143%
December	10	5	5	5	25	50%
TOTALS	48		13.2	20.6	66.08	435.81%
AVERAGE	4		1.65	2.575	8.26	54.476%
Next period forecast		7.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.319	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3	3.607	-.607	.607	.369	20.238%
September	2	3.607	-1.607	1.607	2.583	80.357%
October	5	3.321	1.679	1.679	2.818	33.571%
November	7	3.821	3.179	3.179	10.103	45.408%
December	10	4.679	5.321	5.321	28.318	53.214%
TOTALS	48		7.964	12.393	44.19	232.789%
AVERAGE	4		1.593	2.479	8.838	46.558%
Next period forecast		6.071	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.838	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	1					
April	1					
May	3					
June	6					
July	5					
August	3					
September	2					
October	5					
November	7	3.509	3.491	3.491	12.186	49.87%
December	10	4.218	5.782	5.782	33.429	57.818%
TOTALS	48		9.273	9.273	45.616	107.688%
AVERAGE	4		4.636	4.636	22.808	53.844%
Next period forecast		5.382	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5	7.333	-2.333	2.333	5.444	46.667%
April	6	6	0	0	0	0%
May	4	5.667	-1.667	1.667	2.778	41.667%
June	5	4.667	.333	.333	.111	6.667%
July	7	4.667	2.333	2.333	5.444	33.333%
August	3	6.333	-3.333	3.333	11.111	111.111%
September	10	4.333	5.667	5.667	32.111	56.667%
October	9	7.667	1.333	1.333	1.778	14.815%
November	7	9.333	-2.333	2.333	5.444	33.333%
December	8	7.667	.333	.333	.111	4.167%
TOTALS	78		.333	19.667	64.333	348.426%
AVERAGE	6.5		.033	1.967	6.433	34.843%
Next period forecast		7.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.836	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6	6.167	-.167	.167	.028	2.778%
May	4	6	-2	2	4	50%
June	5	4.833	.167	.167	.028	3.333%
July	7	4.833	2.167	2.167	4.694	30.952%
August	3	5.833	-2.833	2.833	8.028	94.444%
September	10	4.667	5.333	5.333	28.444	53.333%
October	9	7.167	1.833	1.833	3.361	20.37%
November	7	8.333	-1.333	1.333	1.778	19.048%
December	8	8.167	-.167	.167	.028	2.083%
TOTALS	78		3	16	50.389	276.343%
AVERAGE	6.5		.333	1.778	5.599	30.705%
Next period forecast		7.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.683	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6					
May	4	6.1	-2.1	2.1	4.41	52.5%
June	5	5.2	-.2	.2	.04	4%
July	7	4.9	2.1	2.1	4.41	30%
August	3	5.7	-2.7	2.7	7.29	90%
September	10	4.7	5.3	5.3	28.09	53%
October	9	6.8	2.2	2.2	4.84	24.444%
November	7	7.9	-.9	.9	.81	12.857%
December	8	7.8	-.2	.2	.04	2.5%
TOTALS	78		3.9	15.7	49.93	269.302%
AVERAGE	6.5		.487	1.963	6.241	33.663%
Next period forecast		8.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.885	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error	
January	6						
February	8						
March	5						
April	6						
May	4						
June	5	5.4	-.4	.4	.16	8%	
July	7	5.133	1.867	1.867	3.484	26.667%	
August	3	5.6	-2.6	2.6	6.76	86.667%	
September	10	4.8	5.2	5.2	27.04	52%	
October	9	6.467	2.533	2.533	6.418	28.148%	
November	7	7.533	-.533	.533	.284	7.619%	
December	8	7.6	-.4	.4	.16	5%	
TOTALS	78		6.467	13.533	44.307	214.101%	
AVERAGE	6.5		1.933	9.24	1.933	6.33	30.586%
Next period forecast		7.867	(Bias)	(MAD)	(MSE)	(MAPE)	
				Std err	2.977		

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6					
May	4					
June	5					
July	7	5.286	1.714	1.714	2.939	24.49%
August	3	5.667	-2.667	2.667	7.111	88.889%
September	10	4.857	5.143	5.143	26.449	51.429%
October	9	6.286	2.714	2.714	7.367	30.159%
November	7	7.19	-.19	.19	.036	2.721%
December	8	7.381	.619	.619	.383	7.738%
TOTALS	78		7.333	13.048	44.286	205.425%
AVERAGE	6.5		1.222	2.175	7.381	34.238%
Next period forecast		7.714	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.327	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6					
May	4					
June	5					
July	7					
August	3	5.714	-2.714	2.714	7.367	90.476%
September	10	5	5	5	25	50%
October	9	6.143	2.857	2.857	8.163	31.746%
November	7	6.964	.036	.036	.001	.51%
December	8	7.143	.857	.857	.735	10.714%
TOTALS	78		6.036	11.464	41.267	183.447%
AVERAGE	6.5		1.207	2.293	8.253	36.689%
Next period forecast		7.536	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.709	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6					
May	4					
June	5					
July	7					
August	3					
September	10	5.111	4.889	4.889	23.901	48.889%
October	9	6.111	2.889	2.889	8.346	32.099%
November	7	6.778	.222	.222	.049	3.175%
December	8	6.972	1.028	1.028	1.056	12.847%
TOTALS	78		9.028	9.028	33.353	97.009%
AVERAGE	6.5		2.257	2.257	8.338	24.252%
Next period forecast		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.084	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6					
May	4					
June	5					
July	7					
August	3					
September	10					
October	9	6.089	2.911	2.911	8.475	32.346%
November	7	6.689	.311	.311	.097	4.444%
December	8	6.822	1.178	1.178	1.387	14.722%
TOTALS	78		4.4	4.4	9.959	51.512%
AVERAGE	6.5		1.467	1.467	3.32	17.171%
Next period forecast		7.178	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.156	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8					
March	5					
April	6					
May	4					
June	5					
July	7					
August	3					
September	10					
October	9					
November	7	6.618	.382	.382	.146	5.455%
December	8	6.745	1.255	1.255	1.574	15.682%
TOTALS	78		1.636	1.636	1.72	21.136%
AVERAGE	6.5		.818	.818	.86	10.568%
Next period forecast		7.036	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Ditirang mengemukakan dan memperbanyak sebagian atau seluruh karya tiis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

Table for Periode 2 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 3

Table for Periode 3 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 4

Table for Periode 4 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 5

Table for Periode 5 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 6

Table for Periode 6 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 7

Table for Periode 7 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 8

Table for Periode 8 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 9

Table for Periode 9 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

Periode 10

Table for Periode 10 with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast.

2. Diarahkan mengemukakan dan memperbaiki sebagai bagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7	5.333	1.667	1.667	2.778	23.81%
April	6	6.333	-.333	.333	.111	5.556%
May	10	6.333	3.667	3.667	13.444	36.667%
June	8	8.667	-.667	.667	.444	8.333%
July	4	8.667	-4.667	4.667	21.778	116.667%
August	6	5.333	.667	.667	.444	11.111%
September	3	5.333	-2.333	2.333	5.444	77.778%
October	5	4	1	1	1	20%
November	4	4.333	-.333	.333	.111	8.333%
December	6	4.333	1.667	1.667	2.778	27.778%
TOTALS	70		.333	17	48.333	336.032%
AVERAGE	5.833		.033	1.7	4.833	33.603%
Next period forecast		5.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.458	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6	6.167	-.167	.167	.028	2.778%
May	10	6.167	3.833	3.833	14.694	38.333%
June	8	8.167	-.167	.167	.028	2.083%
July	4	8.333	-4.333	4.333	18.778	108.333%
August	6	6.333	-.333	.333	.111	5.556%
September	3	5.667	-2.667	2.667	7.111	88.889%
October	5	4.167	.833	.833	.694	16.667%
November	4	4.5	-.5	.5	.25	12.5%
December	6	4.167	1.833	1.833	3.361	30.556%
TOTALS	70		-1.667	14.667	45.056	305.695%
AVERAGE	5.833		-1.85	1.63	5.006	33.966%
Next period forecast		5.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.537	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10	6.1	3.9	3.9	15.21	39%
June	8	7.7	.3	.3	.09	3.75%
July	4	8.1	-4.1	4.1	16.81	102.5%
August	6	6.6	-.6	.6	.36	10%
September	3	6.2	-3.2	3.2	10.24	106.667%
October	5	4.6	.4	.4	.16	8%
November	4	4.5	-.5	.5	.25	12.5%
December	6	4.3	1.7	1.7	2.89	28.333%
TOTALS	70		-2.1	14.7	46.01	310.75%
AVERAGE	5.833		-.262	1.838	5.751	38.844%
Next period forecast		4.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.769	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8	7.4	.6	.6	.36	7.5%
July	4	7.8	-3.8	3.8	14.44	95%
August	6	6.733	-.733	.733	.538	12.222%
September	3	6.4	-3.4	3.4	11.56	113.333%
October	5	5.133	-.133	.133	.018	2.667%
November	4	4.733	-.733	.733	.538	18.333%
December	6	4.333	1.667	1.667	2.778	27.778%
TOTALS	70		-6.533	11.067	30.231	276.833%
AVERAGE	5.833		-.933	1.581	4.319	39.548%
Next period forecast		4.867	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.459	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4	7.571	-3.571	3.571	12.755	89.286%
August	6	6.714	-.714	.714	.51	11.905%
September	3	6.524	-3.524	3.524	12.417	117.46%
October	5	5.429	-.429	.429	.184	8.571%
November	4	5.095	-1.095	1.095	1.2	27.381%
December	6	4.524	1.476	1.476	2.179	24.603%
TOTALS	70		-7.857	10.81	29.245	279.206%
AVERAGE	5.833		-1.31	1.802	4.874	46.534%
Next period forecast		4.81	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.704	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6	6.679	-.679	.679	.46	11.31%
September	3	6.536	-3.536	3.536	12.501	117.857%
October	5	5.643	-.643	.643	.413	12.857%
November	4	5.321	-1.321	1.321	1.746	33.036%
December	6	4.821	1.179	1.179	1.389	19.643%
TOTALS	70		-5	7.357	16.51	194.702%
AVERAGE	5.833		-1	1.471	3.302	38.94%
Next period forecast		4.893	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.346	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6					
September	3	6.528	-3.528	3.528	12.445	117.593%
October	5	5.75	-.75	.75	.563	15%
November	4	5.5	-1.5	1.5	2.25	37.5%
December	6	5.028	.972	.972	.945	16.204%
TOTALS	70		-4.806	6.75	16.203	186.296%
AVERAGE	5.833		-1.201	1.688	4.051	46.574%
Next period forecast		5.083	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.846	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6					
September	3					
October	5	5.822	-.822	.822	.676	16.444%
November	4	5.6	-1.6	1.6	2.56	40%
December	6	5.2	.8	.8	.64	13.333%
TOTALS	70		-1.622	3.222	3.876	69.778%
AVERAGE	5.833		-.541	1.074	1.292	23.259%
Next period forecast		5.222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.969	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5					
March	7					
April	6					
May	10					
June	8					
July	4					
August	6					
September	3					
October	5					
November	4	5.673	-1.673	1.673	2.798	41.818%
December	6	5.309	.691	.691	.477	11.515%
TOTALS	70		-.982	2.364	3.275	53.333%
AVERAGE	5.833		-.491	1.182	1.638	26.667%
Next period forecast		5.345	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4	4.667	-.667	.667	.444	16.667%
April	6	4.333	1.667	1.667	2.778	27.778%
May	8	5.333	2.667	2.667	7.111	33.333%
June	5	7.333	-2.333	2.333	5.444	46.667%
July	7	6	1	1	1	14.286%
August	10	6.333	3.667	3.667	13.444	36.667%
September	3	9	-6	6	36	200%
October	1	5.333	-4.333	4.333	18.778	433.333%
November	2	1.667	.333	.333	.111	16.667%
December	4	1.667	2.333	2.333	5.444	58.333%
TOTALS	59		-1.667	25	90.556	883.73%
AVERAGE	4.917		-1.67	2.5	9.056	88.373%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.364	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6	4.333	1.667	1.667	2.778	27.778%
May	8	5.167	2.833	2.833	8.028	35.417%
June	5	6.667	-1.667	1.667	2.778	33.333%
July	7	6.167	.833	.833	.694	11.905%
August	10	6.5	3.5	3.5	12.25	35%
September	3	8.167	-5.167	5.167	26.694	172.222%
October	1	6	-5	5	25	500%
November	2	3.167	-1.167	1.167	1.361	58.333%
December	4	1.833	2.167	2.167	4.694	54.167%
TOTALS	59		-2	24	84.278	928.155%
AVERAGE	4.917		-2.22	2.667	9.364	103.128%
Next period forecast		2.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.47	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8	5	3	3	9	37.5%
June	5	6.3	-1.3	1.3	1.69	26%
July	7	6	1	1	1	14.286%
August	10	6.5	3.5	3.5	12.25	35%
September	3	7.9	-4.9	4.9	24.01	163.333%
October	1	6.1	-5.1	5.1	26.01	510%
November	2	4	-2	2	4	100%
December	4	2.7	1.3	1.3	1.69	32.5%
TOTALS	59		-4.5	22.1	79.65	918.619%
AVERAGE	4.917		-5.63	2.763	9.956	114.827%
Next period forecast		2.7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.643	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5	6	-1	1	1	20%
July	7	5.867	1.133	1.133	1.284	16.19%
August	10	6.333	3.667	3.667	13.444	36.667%
September	3	7.667	-4.667	4.667	21.778	155.556%
October	1	6.267	-5.267	5.267	27.738	526.667%
November	2	4.4	-2.4	2.4	5.76	120%
December	4	3.333	.667	.667	.444	16.667%
TOTALS	59		-7.867	18.8	71.449	891.746%
AVERAGE	4.917		-1.124	2.686	10.207	127.392%
Next period forecast		3.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.78	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7	5.714	1.286	1.286	1.653	18.367%
August	10	6.19	3.81	3.81	14.512	38.095%
September	3	7.381	-4.381	4.381	19.193	146.032%
October	1	6.333	-5.333	5.333	28.444	533.333%
November	2	4.762	-2.762	2.762	7.628	138.095%
December	4	3.714	.286	.286	.082	7.143%
TOTALS	59		-7.095	17.857	71.512	881.066%
AVERAGE	4.917		-1.183	2.976	11.919	146.844%
Next period forecast		3.524	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.228	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10	6.036	3.964	3.964	15.716	39.643%
September	3	7.143	-4.143	4.143	17.163	138.095%
October	1	6.286	-5.286	5.286	27.939	528.571%
November	2	5	-3	3	9	150%
December	4	4.071	-.071	.071	.005	1.786%
TOTALS	59		-8.536	16.464	69.823	858.095%
AVERAGE	4.917		-1.707	3.293	13.965	171.619%
Next period forecast		3.786	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.824	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10					
September	3	6.917	-3.917	3.917	15.34	130.556%
October	1	6.222	-5.222	5.222	27.272	522.222%
November	2	5.111	-3.111	3.111	9.679	155.556%
December	4	4.333	-.333	.333	.111	8.333%
TOTALS	59		-12.583	12.583	52.402	816.667%
AVERAGE	4.917		-3.146	3.146	13.101	204.167%
Next period forecast		4.056	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.119	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10					
September	3					
October	1	6.133	-5.133	5.133	26.351	513.333%
November	2	5.178	-3.178	3.178	10.098	158.889%
December	4	4.489	-.489	.489	.239	12.222%
TOTALS	59		-8.8	8.8	36.688	684.445%
AVERAGE	4.917		-2.933	2.933	12.229	228.148%
Next period forecast		4.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.057	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	6					
May	8					
June	5					
July	7					
August	10					
September	3					
October	1					
November	2	5.2	-3.2	3.2	10.24	160%
December	4	4.6	-.6	.6	.36	15%
TOTALS	59		-3.8	3.8	10.6	175%
AVERAGE	4.917		-1.9	1.9	5.3	87.5%
Next period forecast		4.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9	10.333	-1.333	1.333	1.778	14.815%
April	10	10	0	0	0	0%
May	13	9.667	3.333	3.333	11.111	25.641%
June	8	12	-4	4	16	50%
July	15	9.667	5.333	5.333	28.444	35.556%
August	11	12.667	-1.667	1.667	2.778	15.152%
September	14	12.333	1.667	1.667	2.778	11.905%
October	17	13	4	4	16	23.529%
November	16	16	0	0	0	0%
December	15	16.333	-1.333	1.333	1.778	8.889%
TOTALS	147		6	22.667	80.667	185.486%
AVERAGE	12.25		.6	2.267	8.067	18.549%
Next period forecast		15.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.175	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10	9.667	.333	.333	.111	3.333%
May	13	10	3	3	9	23.077%
June	8	11.333	-3.333	3.333	11.111	41.667%
July	15	10	5	5	25	33.333%
August	11	12.333	-1.333	1.333	1.778	12.121%
September	14	11.833	2.167	2.167	4.694	15.476%
October	17	13.167	3.833	3.833	14.694	22.549%
November	16	15	1	1	1	6.25%
December	15	16	-1	1	1	6.667%
TOTALS	147		9.667	21	68.389	164.473%
AVERAGE	12.25		1.074	2.333	7.599	18.275%
Next period forecast		15.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.126	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13	9.8	3.2	3.2	10.24	24.615%
June	8	11.2	-3.2	3.2	10.24	40%
July	15	10	5	5	25	33.333%
August	11	12	-1	1	1	9.091%
September	14	11.8	2.2	2.2	4.84	15.714%
October	17	12.7	4.3	4.3	18.49	25.294%
November	16	14.7	1.3	1.3	1.69	8.125%
December	15	15.4	-.4	.4	.16	2.667%
TOTALS	147		11.4	20.6	71.66	158.84%
AVERAGE	12.25		1.425	2.575	8.958	19.855%
Next period forecast		15.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.456	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8	10.867	-2.867	2.867	8.218	35.833%
July	15	10.133	4.867	4.867	23.684	32.444%
August	11	11.667	-.667	.667	.444	6.061%
September	14	11.667	2.333	2.333	5.444	16.667%
October	17	12.533	4.467	4.467	19.951	26.275%
November	16	14.133	1.867	1.867	3.484	11.667%
December	15	15.133	-.133	.133	.018	.889%
TOTALS	147		9.867	17.2	61.244	129.835%
AVERAGE	12.25		1.41	2.457	8.749	18.548%
Next period forecast		15.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.5	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15	10.048	4.952	4.952	24.526	33.016%
August	11	11.524	-.524	.524	.274	4.762%
September	14	11.476	2.524	2.524	6.37	18.027%
October	17	12.333	4.667	4.667	21.778	27.451%
November	16	13.81	2.19	2.19	4.798	13.69%
December	15	14.667	.333	.333	.111	2.222%
TOTALS	147		14.143	15.19	57.857	99.169%
AVERAGE	12.25		2.357	2.532	9.643	16.528%
Next period forecast		15.095	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.803	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11	11.286	-.286	.286	.082	2.597%
September	14	11.393	2.607	2.607	6.797	18.622%
October	17	12.107	4.893	4.893	23.94	28.782%
November	16	13.5	2.5	2.5	6.25	15.625%
December	15	14.357	-.643	.643	.413	4.286%
TOTALS	147		10.357	10.929	37.482	69.912%
AVERAGE	12.25		2.071	2.186	7.496	13.982%
Next period forecast		14.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.535	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11					
September	14	11.222	2.778	2.778	7.716	19.841%
October	17	11.972	5.028	5.028	25.279	29.575%
November	16	13.194	2.806	2.806	7.871	17.535%
December	15	14.056	-.944	.944	.892	6.296%
TOTALS	147		11.556	11.556	41.758	73.247%
AVERAGE	12.25		2.889	2.889	10.439	18.312%
Next period forecast		14.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.569	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11					
September	14					
October	17	11.778	5.222	5.222	27.272	30.719%
November	16	12.978	3.022	3.022	9.134	18.889%
December	15	13.756	1.244	1.244	1.549	8.296%
TOTALS	147		9.489	9.489	37.954	57.904%
AVERAGE	12.25		3.163	3.163	12.651	19.301%
Next period forecast		14.244	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.161	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12					
March	9					
April	10					
May	13					
June	8					
July	15					
August	11					
September	14					
October	17					
November	16	12.727	3.273	3.273	10.711	20.455%
December	15	13.527	1.473	1.473	2.169	9.818%
TOTALS	147		4.745	4.745	12.88	30.273%
AVERAGE	12.25		2.373	2.373	6.44	15.136%
Next period forecast		13.982	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4	5.667	-1.667	1.667	2.778	41.667%
April	5	4.667	.333	.333	.111	6.667%
May	3	4.667	-1.667	1.667	2.778	55.556%
June	2	3.667	-1.667	1.667	2.778	83.333%
July	5	2.333	2.667	2.667	7.111	53.333%
August	4	4	0	0	0	0%
September	3	4.333	-1.333	1.333	1.778	44.444%
October	3	3.333	-.333	.333	.111	11.111%
November	5	3	2	2	4	40%
December	2	4.333	-2.333	2.333	5.444	116.667%
TOTALS	47		-4	14	26.889	452.778%
AVERAGE	3.917		-4	1.4	2.689	45.278%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.833	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2	4.267	-2.267	2.267	5.138	113.333%
July	5	3.4	1.6	1.6	2.56	32%
August	4	3.733	.267	.267	.071	6.667%
September	3	3.8	-.8	.8	.64	26.667%
October	3	3.533	-.533	.533	.284	17.778%
November	5	3.4	1.6	1.6	2.56	32%
December	2	3.933	-1.933	1.933	3.738	96.667%
TOTALS	47		-2.067	9	14.991	325.111%
AVERAGE	3.917		-.295	1.286	2.142	46.444%
Next period forecast		3.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.732	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4					
September	3	3.972	-.972	.972	.945	32.407%
October	3	3.694	-.694	.694	.482	23.148%
November	5	3.472	1.528	1.528	2.334	30.556%
December	2	3.778	-1.778	1.778	3.16	88.889%
TOTALS	47		-1.917	4.972	6.922	175%
AVERAGE	3.917		-.479	1.243	1.731	43.75%
Next period forecast		3.389	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.86	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5	4.833	-.167	.167	.028	3.333%
May	3	4.833	-1.833	1.833	3.361	61.111%
June	2	3.833	-1.833	1.833	3.361	91.667%
July	5	2.833	2.167	2.167	4.694	43.333%
August	4	3.667	-.333	.333	.111	8.333%
September	3	4	-1	1	1	33.333%
October	3	3.667	-.667	.667	.444	22.222%
November	5	3.167	1.833	1.833	3.361	36.667%
December	2	4	-2	2	4	100%
TOTALS	47		-2.833	11.833	20.361	400%
AVERAGE	3.917		-.315	1.315	2.262	44.444%
Next period forecast		3.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.706	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5	3.619	1.381	1.381	1.907	27.619%
August	4	3.857	-.143	.143	.02	3.571%
September	3	3.81	-.81	.81	.655	26.984%
October	3	3.571	-.571	.571	.327	19.048%
November	5	3.381	1.619	1.619	2.621	32.381%
December	2	3.857	-1.857	1.857	3.449	92.857%
TOTALS	47		-.095	6.381	8.98	202.46%
AVERAGE	3.917		-.016	1.063	1.497	33.743%
Next period forecast		3.381	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.498	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4					
September	3					
October	3	3.778	-.778	.778	.605	25.926%
November	5	3.556	1.444	1.444	2.086	28.889%
December	2	3.778	-1.778	1.778	3.16	88.889%
TOTALS	47		-1.111	4	5.852	143.704%
AVERAGE	3.917		-.37	1.333	1.951	47.901%
Next period forecast		3.422	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.419	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3	4.9	-1.9	1.9	3.61	63.333%
June	2	4.1	-2.1	2.1	4.41	105%
July	5	3.1	1.9	1.9	3.61	38%
August	4	3.7	-.3	.3	.09	7.5%
September	3	3.8	-.8	.8	.64	26.667%
October	3	3.6	-.6	.6	.36	20%
November	5	3.4	1.6	1.6	2.56	32%
December	2	3.9	-1.9	1.9	3.61	95%
TOTALS	47		-3.5	11.1	18.89	387.5%
AVERAGE	3.917		-4.38	1.388	2.361	48.438%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.774	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4	3.964	-.036	.036	.001	.893%
September	3	3.893	-.893	.893	.797	29.762%
October	3	3.607	-.607	.607	.369	20.238%
November	5	3.429	1.571	1.571	2.469	31.429%
December	2	3.786	-1.786	1.786	3.189	89.286%
TOTALS	47		-1.679	4.893	6.825	171.607%
AVERAGE	3.917		-.336	.979	1.365	34.321%
Next period forecast		3.393	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.508	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6					
March	4					
April	5					
May	3					
June	2					
July	5					
August	4					
September	3					
October	3					
November	5	3.636	1.364	1.364	1.86	27.273%
December	2	3.818	-1.818	1.818	3.306	90.909%
TOTALS	47		-4.55	3.182	5.165	118.182%
AVERAGE	3.917		-.227	1.591	2.583	59.091%
Next period forecast		3.455	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



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Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5	3.667	1.333	1.333	1.778	26.667%
April	7	4.667	2.333	2.333	5.444	33.333%
May	2	6.333	-4.333	4.333	18.778	216.667%
June	5	3.667	1.333	1.333	1.778	26.667%
July	3	4	-1	1	1	33.333%
August	8	3.667	4.333	4.333	18.778	54.167%
September	7	6.333	.667	.667	.444	9.524%
October	4	7.333	-3.333	3.333	11.111	83.333%
November	7	5	2	2	4	28.571%
December	2	6	-4	4	16	200%
TOTALS	57		-.667	24.667	79.111	712.262%
AVERAGE	4.75		-.067	2.467	7.911	71.226%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.145	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7	4.333	2.667	2.667	7.111	38.095%
May	2	5.833	-3.833	3.833	14.694	191.667%
June	5	4.167	.833	.833	.694	16.667%
July	3	4.333	-1.333	1.333	1.778	44.444%
August	8	3.5	4.5	4.5	20.25	56.25%
September	7	5.833	1.167	1.167	1.361	16.667%
October	4	6.667	-2.667	2.667	7.111	66.667%
November	7	5.667	1.333	1.333	1.778	19.048%
December	2	6	-4	4	16	200%
TOTALS	57		-1.333	22.333	70.778	649.504%
AVERAGE	4.75		-.148	2.481	7.864	72.167%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.18	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2	5.4	-3.4	3.4	11.56	170%
June	5	4.3	.7	.7	.49	14%
July	3	4.5	-1.5	1.5	2.25	50%
August	8	3.8	4.2	4.2	17.64	52.5%
September	7	5.3	1.7	1.7	2.89	24.286%
October	4	6.3	-2.3	2.3	5.29	57.5%
November	7	5.6	1.4	1.4	1.96	20%
December	2	6.2	-4.2	4.2	17.64	210%
TOTALS	57		-3.4	19.4	59.72	598.286%
AVERAGE	4.75		-.425	2.425	7.465	74.786%
Next period forecast		4.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.155	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5	4.267	.733	.733	.538	14.667%
July	3	4.533	-1.533	1.533	2.351	51.111%
August	8	4	4	4	16	50%
September	7	5.2	1.8	1.8	3.24	25.714%
October	4	5.867	-1.867	1.867	3.484	46.667%
November	7	5.533	1.467	1.467	2.151	20.952%
December	2	6.067	-4.067	4.067	16.538	203.333%
TOTALS	57		.533	15.467	44.302	412.444%
AVERAGE	4.75		.076	2.21	6.329	58.921%
Next period forecast		4.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.977	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3	4.476	-1.476	1.476	2.179	49.206%
August	8	4.095	3.905	3.905	15.247	48.81%
September	7	5.143	1.857	1.857	3.449	26.531%
October	4	5.714	-1.714	1.714	2.939	42.857%
November	7	5.333	1.667	1.667	2.778	23.81%
December	2	5.952	-3.952	3.952	15.621	197.619%
TOTALS	57		.286	14.571	42.213	388.832%
AVERAGE	4.75		.048	2.429	7.036	64.805%
Next period forecast		4.905	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.249	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8	4.107	3.893	3.893	15.154	48.661%
September	7	5.071	1.929	1.929	3.719	27.551%
October	4	5.607	-1.607	1.607	2.583	40.179%
November	7	5.286	1.714	1.714	2.939	24.49%
December	2	5.75	-3.75	3.75	14.063	187.5%
TOTALS	57		2.179	12.893	38.458	328.38%
AVERAGE	4.75		.436	2.579	7.692	65.676%
Next period forecast		4.964	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.58	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8					
September	7	4.972	2.028	2.028	4.112	28.968%
October	4	5.5	-1.5	1.5	2.25	37.5%
November	7	5.25	1.75	1.75	3.063	25%
December	2	5.667	-3.667	3.667	13.444	183.333%
TOTALS	57		-1.389	8.944	22.869	274.802%
AVERAGE	4.75		-.294	2.236	5.717	68.7%
Next period forecast		4.917	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.381	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8					
September	7					
October	4	5.378	-1.378	1.378	1.898	34.444%
November	7	5.2	1.8	1.8	3.24	25.714%
December	2	5.6	-3.6	3.6	12.96	180%
TOTALS	57		-3.178	6.778	18.098	240.159%
AVERAGE	4.75		-.459	2.259	6.033	80.053%
Next period forecast		4.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.254	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4					
March	5					
April	7					
May	2					
June	5					
July	3					
August	8					
September	7					
October	4					
November	7	5.127	1.873	1.873	3.507	26.753%
December	2	5.527	-3.527	3.527	12.442	176.364%
TOTALS	57		-1.655	5.4	15.949	203.117%
AVERAGE	4.75		-.327	2.7	7.974	101.558%
Next period forecast		4.945	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



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Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5	2.667	2.333	2.333	5.444	46.667%
April	4	4.333	-3.333	.333	.111	8.333%
May	8	4.333	3.667	3.667	13.444	45.833%
June	5	6.667	-1.667	1.667	2.778	33.333%
July	8	6	2	2	4	25%
August	4	7	-3	3	9	75%
September	2	5.333	-3.333	3.333	11.111	166.667%
October	3	2.667	.333	.333	.111	11.111%
November	4	2.667	1.333	1.333	1.778	33.333%
December	2	3.667	-1.667	1.667	2.778	83.333%
TOTALS	50		-3.333	19.667	50.556	528.611%
AVERAGE	4.167		-0.333	1.967	5.056	52.861%
Next period forecast		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.514	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4	3.833	.167	.167	.028	4.167%
May	8	4.167	3.833	3.833	14.694	47.917%
June	5	6.167	-1.167	1.167	1.361	23.333%
July	8	5.833	2.167	2.167	4.694	27.083%
August	4	7	-3	3	9	75%
September	2	5.5	-3.5	3.5	12.25	175%
October	3	3.667	-.667	.667	.444	22.222%
November	4	2.833	1.167	1.167	1.361	29.167%
December	2	3.333	-1.333	1.333	1.778	66.667%
TOTALS	50		-2.333	17	45.611	470.556%
AVERAGE	4.167		-.259	1.889	5.068	52.284%
Next period forecast		2.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.553	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8	3.9	4.1	4.1	16.81	51.25%
June	5	5.7	-.7	.7	.49	14%
July	8	5.7	2.3	2.3	5.29	28.75%
August	4	6.7	-2.7	2.7	7.29	67.5%
September	2	5.8	-3.8	3.8	14.44	190%
October	3	4.1	-1.1	1.1	1.21	36.667%
November	4	3.4	.6	.6	.36	15%
December	2	3.3	-1.3	1.3	1.69	65%
TOTALS	50		-2.6	16.6	47.58	468.167%
AVERAGE	4.167		-.325	2.075	5.948	58.521%
Next period forecast		2.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.816	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5	5.267	-.267	.267	.071	5.333%
July	8	5.467	2.533	2.533	6.418	31.667%
August	4	6.467	-2.467	2.467	6.084	61.667%
September	2	5.8	-3.8	3.8	14.44	190%
October	3	4.533	-1.533	1.533	2.351	51.111%
November	4	3.733	.267	.267	.071	6.667%
December	2	3.6	-1.6	1.6	2.56	80%
TOTALS	50		-6.867	12.467	31.996	426.445%
AVERAGE	4.167		-.981	1.781	4.571	60.921%
Next period forecast		2.867	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.53	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8	5.19	2.81	2.81	7.893	35.119%
August	4	6.19	-2.19	2.19	4.798	54.762%
September	2	5.762	-3.762	3.762	14.152	188.095%
October	3	4.714	-1.714	1.714	2.939	57.143%
November	4	4.095	-.095	.095	.009	2.381%
December	2	3.81	-1.81	1.81	3.274	90.476%
TOTALS	50		-6.762	12.381	33.066	427.976%
AVERAGE	4.167		-1.127	2.063	5.511	71.329%
Next period forecast		3.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.875	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4	5.893	-1.893	1.893	3.583	47.321%
September	2	5.643	-3.643	3.643	13.27	182.143%
October	3	4.821	-1.821	1.821	3.318	60.714%
November	4	4.286	-.286	.286	.082	7.143%
December	2	4.071	-2.071	2.071	4.291	103.571%
TOTALS	50		-9.714	9.714	24.543	400.893%
AVERAGE	4.167		-1.943	1.943	4.909	80.179%
Next period forecast		3.357	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.86	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4					
September	2	5.472	-3.472	3.472	12.056	173.611%
October	3	4.833	-1.833	1.833	3.361	61.111%
November	4	4.417	-.417	.417	.174	10.417%
December	2	4.222	-2.222	2.222	4.938	111.111%
TOTALS	50		-7.944	7.944	20.529	356.25%
AVERAGE	4.167		-1.986	1.986	5.132	89.063%
Next period forecast		3.611	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.204	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4					
September	2					
October	3	4.778	-1.778	1.778	3.16	59.259%
November	4	4.467	-.467	.467	.218	11.667%
December	2	4.333	-2.333	2.333	5.444	116.667%
TOTALS	50		-4.578	4.578	8.823	187.593%
AVERAGE	4.167		-1.526	1.526	2.941	62.531%
Next period forecast		3.778	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.97	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	5					
April	4					
May	8					
June	5					
July	8					
August	4					
September	2					
October	3					
November	4	4.455	-.455	.455	.207	11.364%
December	2	4.382	-2.382	2.382	5.673	119.091%
TOTALS	50		-2.836	2.836	5.88	130.455%
AVERAGE	4.167		-1.418	1.418	2.94	65.227%
Next period forecast		3.909	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9	7.333	1.667	1.667	2.778	18.519%
April	7	8.333	-1.333	1.333	1.778	19.048%
May	8	7.667	.333	.333	.111	4.167%
June	6	7.667	-1.667	1.667	2.778	27.778%
July	8	6.667	1.333	1.333	1.778	16.667%
August	10	7.333	2.667	2.667	7.111	26.667%
September	9	9.333	-.333	.333	.111	3.704%
October	11	9.333	1.667	1.667	2.778	15.152%
November	8	10.333	-2.333	2.333	5.444	29.167%
December	10	9	1	1	1	10%
TOTALS	101		3	14.333	25.667	170.866%
AVERAGE	8.417		.3	1.433	2.567	17.087%
Next period forecast		9.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.791	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7	8.167	-1.167	1.167	1.361	16.667%
May	8	7.667	.333	.333	.111	4.167%
June	6	7.833	-1.833	1.833	3.361	30.556%
July	8	6.833	1.167	1.167	1.361	14.583%
August	10	7.333	2.667	2.667	7.111	26.667%
September	9	8.667	-.333	.333	.111	3.704%
October	11	9.167	1.833	1.833	3.361	16.667%
November	8	10.167	-2.167	2.167	4.694	27.083%
December	10	9.167	.833	.833	.694	8.333%
TOTALS	101		2	12.333	22.167	148.426%
AVERAGE	8.417		.222	1.37	2.463	16.492%
Next period forecast		9.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.78	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8	7.7	.3	.3	.09	3.75%
June	6	7.8	-1.8	1.8	3.24	30%
July	8	7.1	.9	.9	.81	11.25%
August	10	7.3	2.7	2.7	7.29	27%
September	9	8.4	-.6	.6	.36	6.667%
October	11	8.8	2.2	2.2	4.84	20%
November	8	9.9	-1.9	1.9	3.61	23.75%
December	10	9.3	.7	.7	.49	7%
TOTALS	101		3.7	11.1	20.73	129.417%
AVERAGE	8.417		.462	1.388	2.591	16.177%
Next period forecast		9.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.859	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6	7.8	-1.8	1.8	3.24	30%
July	8	7.2	.8	.8	.64	10%
August	10	7.4	2.6	2.6	6.76	26%
September	9	8.2	.8	.8	.64	8.889%
October	11	8.6	2.4	2.4	5.76	21.818%
November	8	9.533	-1.533	1.533	2.351	19.167%
December	10	9.267	.733	.733	.538	7.333%
TOTALS	101		4	10.667	19.929	123.207%
AVERAGE	8.417		.571	1.524	2.847	17.601%
Next period forecast		9.533	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.996	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8	7.286	.714	.714	.51	8.929%
August	10	7.429	2.571	2.571	6.612	25.714%
September	9	8.143	.857	.857	.735	9.524%
October	11	8.429	2.571	2.571	6.612	23.377%
November	8	9.286	-1.286	1.286	1.653	16.071%
December	10	9.095	.905	.905	.819	9.048%
TOTALS	101		6.333	8.905	16.941	92.662%
AVERAGE	8.417		1.056	1.484	2.824	15.444%
Next period forecast		9.476	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.058	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10	7.464	2.536	2.536	6.43	25.357%
September	9	8.071	.929	.929	.862	10.317%
October	11	8.357	2.643	2.643	6.985	24.026%
November	8	9.071	-1.071	1.071	1.148	13.393%
December	10	8.964	1.036	1.036	1.073	10.357%
TOTALS	101		6.071	8.214	16.497	83.451%
AVERAGE	8.417		1.214	1.643	3.299	16.69%
Next period forecast		9.321	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.345	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10					
September	9	8.028	.972	.972	.945	10.802%
October	11	8.278	2.722	2.722	7.41	24.747%
November	8	8.944	-.944	.944	.892	11.806%
December	10	8.833	1.167	1.167	1.361	11.667%
TOTALS	101		3.917	5.806	10.609	59.022%
AVERAGE	8.417		.979	1.451	2.652	14.756%
Next period forecast		9.194	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.303	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10					
September	9					
October	11	8.222	2.778	2.778	7.716	25.253%
November	8	8.822	-.822	.822	.676	10.278%
December	10	8.756	1.244	1.244	1.549	12.444%
TOTALS	101		3.2	4.844	9.941	47.975%
AVERAGE	8.417		1.067	1.615	3.314	15.992%
Next period forecast		9.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.153	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7					
March	9					
April	7					
May	8					
June	6					
July	8					
August	10					
September	9					
October	11					
November	8	8.727	-.727	.727	.529	9.091%
December	10	8.673	1.327	1.327	1.762	13.273%
TOTALS	101		.6	2.055	2.291	22.364%
AVERAGE	8.417		.3	1.027	1.145	11.182%
Next period forecast		8.982	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5	5.333	-0.333	.333	.111	6.667%
April	4	5.333	-1.333	1.333	1.778	33.333%
May	3	4.333	-1.333	1.333	1.778	44.444%
June	5	3.333	1.667	1.667	2.778	33.333%
July	6	4.333	1.667	1.667	2.778	27.778%
August	4	5.667	-1.667	1.667	2.778	41.667%
September	3	4.667	-1.667	1.667	2.778	55.556%
October	2	3.333	-1.333	1.333	1.778	66.667%
November	4	2.333	1.667	1.667	2.778	41.667%
December	3	3.333	-.333	.333	.111	11.111%
TOTALS	49		-3	13	19.444	362.222%
AVERAGE	4.083		-3	1.3	1.944	36.222%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.559	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4	5.167	-1.167	1.167	1.361	29.167%
May	3	4.667	-1.667	1.667	2.778	55.556%
June	5	3.667	1.333	1.333	1.778	26.667%
July	6	4.167	1.833	1.833	3.361	30.556%
August	4	5.167	-1.167	1.167	1.361	29.167%
September	3	4.833	-1.833	1.833	3.361	61.111%
October	2	3.833	-1.833	1.833	3.361	91.667%
November	4	2.667	1.333	1.333	1.778	33.333%
December	3	3.167	-.167	.167	.028	5.556%
TOTALS	49		-3.333	12.333	19.167	362.778%
AVERAGE	4.083		-.37	1.37	2.13	40.309%
Next period forecast		3.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.655	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3	4.7	-1.7	1.7	2.89	56.667%
June	5	4	1	1	1	20%
July	6	4.2	1.8	1.8	3.24	30%
August	4	4.9	-.9	.9	.81	22.5%
September	3	4.7	-1.7	1.7	2.89	56.667%
October	2	4.1	-2.1	2.1	4.41	105%
November	4	3.1	.9	.9	.81	22.5%
December	3	3.2	-.2	.2	.04	6.667%
TOTALS	49		-2.9	10.3	16.09	320%
AVERAGE	4.083		-.363	1.288	2.011	40%
Next period forecast		3.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.638	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5	4.133	.867	.867	.751	17.333%
July	6	4.333	1.667	1.667	2.778	27.778%
August	4	4.8	-.8	.8	.64	20%
September	3	4.6	-1.6	1.6	2.56	53.333%
October	2	4.133	-2.133	2.133	4.551	106.667%
November	4	3.4	.6	.6	.36	15%
December	3	3.4	-.4	.4	.16	13.333%
TOTALS	49		-1.8	8.067	11.8	253.445%
AVERAGE	4.083		-.257	1.152	1.686	36.206%
Next period forecast		3.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.536	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6	4.381	1.619	1.619	2.621	26.984%
August	4	4.81	-.81	.81	.655	20.238%
September	3	4.571	-1.571	1.571	2.469	52.381%
October	2	4.143	-2.143	2.143	4.592	107.143%
November	4	3.524	.476	.476	.227	11.905%
December	3	3.571	-.571	.571	.327	19.048%
TOTALS	49		-3	7.19	10.891	237.698%
AVERAGE	4.083		-.5	1.198	1.815	39.616%
Next period forecast		3.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.65	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4	4.786	-.786	.786	.617	19.643%
September	3	4.607	-1.607	1.607	2.583	53.571%
October	2	4.179	-2.179	2.179	4.746	108.929%
November	4	3.607	.393	.393	.154	9.821%
December	3	3.643	-.643	.643	.413	21.429%
TOTALS	49		-4.821	5.607	8.514	213.393%
AVERAGE	4.083		-.964	1.121	1.703	42.679%
Next period forecast		3.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.685	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4					
September	3	4.611	-1.611	1.611	2.596	53.704%
October	2	4.25	-2.25	2.25	5.062	112.5%
November	4	3.694	.306	.306	.093	7.639%
December	3	3.694	-.694	.694	.482	23.148%
TOTALS	49		-4.25	4.861	8.234	196.991%
AVERAGE	4.083		-1.063	1.215	2.058	49.248%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.029	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4					
September	3					
October	2	4.289	-2.289	2.289	5.239	114.444%
November	4	3.8	.2	.2	.04	5%
December	3	3.756	-.756	.756	.571	25.185%
TOTALS	49		-2.844	3.244	5.85	144.63%
AVERAGE	4.083		-.948	1.081	1.95	48.21%
Next period forecast		3.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.419	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	4					
May	3					
June	5					
July	6					
August	4					
September	3					
October	2					
November	4	3.873	.127	.127	.016	3.182%
December	3	3.836	-.836	.836	.7	27.879%
TOTALS	49		-.709	.964	.716	31.061%
AVERAGE	4.083		-.355	.482	.358	15.53%
Next period forecast		3.618	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4	4.667	-.667	.667	.444	16.667%
April	3	4.333	-1.333	1.333	1.778	44.444%
May	6	3.333	2.667	2.667	7.111	44.444%
June	4	5	-1	1	1	25%
July	7	4.667	2.333	2.333	5.444	33.333%
August	3	6	-3	3	9	100%
September	10	4.333	5.667	5.667	32.111	56.667%
October	3	7.667	-4.667	4.667	21.778	155.556%
November	2	5.333	-3.333	3.333	11.111	166.667%
December	4	2.333	1.667	1.667	2.778	41.667%
TOTALS	55		-1.667	26.333	92.556	684.444%
AVERAGE	4.583		-1.67	2.633	9.256	68.444%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.401	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3	4.333	-1.333	1.333	1.778	44.444%
May	6	3.667	2.333	2.333	5.444	38.889%
June	4	4.667	-.667	.667	.444	16.667%
July	7	4.5	2.5	2.5	6.25	35.714%
August	3	5.833	-2.833	2.833	8.028	94.444%
September	10	4.5	5.5	5.5	30.25	55%
October	3	7.167	-4.167	4.167	17.361	138.889%
November	2	5.333	-3.333	3.333	11.111	166.667%
December	4	3.667	.333	.333	.111	8.333%
TOTALS	55		-1.667	23	80.778	599.048%
AVERAGE	4.583		-.185	2.556	8.975	66.561%
Next period forecast		3.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.397	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6	3.8	2.2	2.2	4.84	36.667%
June	4	4.6	-.6	.6	.36	15%
July	7	4.4	2.6	2.6	6.76	37.143%
August	3	5.5	-2.5	2.5	6.25	83.333%
September	10	4.7	5.3	5.3	28.09	53%
October	3	6.7	-3.7	3.7	13.69	123.333%
November	2	5.5	-3.5	3.5	12.25	175%
December	4	4	0	0	0	0%
TOTALS	55		-2	20.4	72.24	523.476%
AVERAGE	4.583		-0.25	2.55	9.03	65.435%
Next period forecast		3.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.47	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4	4.533	-.533	.533	.284	13.333%
July	7	4.4	2.6	2.6	6.76	37.143%
August	3	5.267	-2.267	2.267	5.138	75.556%
September	10	4.667	5.333	5.333	28.444	53.333%
October	3	6.467	-3.467	3.467	12.018	115.556%
November	2	5.467	-3.467	3.467	12.018	173.333%
December	4	4.333	-.333	.333	.111	8.333%
TOTALS	55		-2.133	18	64.773	476.587%
AVERAGE	4.583		-.305	2.571	9.253	68.084%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.509	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7	4.381	2.619	2.619	6.859	37.415%
August	3	5.143	-2.143	2.143	4.592	71.429%
September	10	4.619	5.381	5.381	28.955	53.81%
October	3	6.19	-3.19	3.19	10.179	106.349%
November	2	5.476	-3.476	3.476	12.084	173.81%
December	4	4.476	-.476	.476	.227	11.905%
TOTALS	55		-1.286	17.286	62.896	454.717%
AVERAGE	4.583		-.214	2.881	10.483	75.786%
Next period forecast		4.238	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.065	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3	5.036	-2.036	2.036	4.144	67.857%
September	10	4.607	5.393	5.393	29.083	53.929%
October	3	5.964	-2.964	2.964	8.787	98.81%
November	2	5.393	-3.393	3.393	11.511	169.643%
December	4	4.607	-.607	.607	.369	15.179%
TOTALS	55		-3.607	14.393	53.894	405.417%
AVERAGE	4.583		-.721	10.779	81.083%	
Next period forecast		4.357	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.238	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3					
September	10	4.583	5.417	5.417	29.34	54.167%
October	3	5.806	-2.806	2.806	7.871	93.519%
November	2	5.306	-3.306	3.306	10.927	165.278%
December	4	4.639	-.639	.639	.408	15.972%
TOTALS	55		-1.333	12.167	48.546	328.935%
AVERAGE	4.583		-.333	3.042	12.137	82.234%
Next period forecast		4.472	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.927	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3					
September	10					
October	3	5.667	-2.667	2.667	7.111	88.889%
November	2	5.244	-3.244	3.244	10.526	162.222%
December	4	4.644	-.644	.644	.415	16.111%
TOTALS	55		-6.556	6.556	18.053	267.222%
AVERAGE	4.583		-2.185	2.185	6.018	89.074%
Next period forecast		4.511	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.249	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5					
March	4					
April	3					
May	6					
June	4					
July	7					
August	3					
September	10					
October	3					
November	2	5.182	-3.182	3.182	10.124	159.091%
December	4	4.655	-.655	.655	.428	16.364%
TOTALS	55		-3.836	3.836	10.552	175.455%
AVERAGE	4.583		-1.918	1.918	5.276	87.727%
Next period forecast		4.527	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	



Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5	5.333	-0.333	.333	.111	6.667%
April	7	5.333	1.667	1.667	2.778	23.81%
May	4	6.333	-2.333	2.333	5.444	58.333%
June	9	5	4	4	16	44.444%
July	4	7.333	-3.333	3.333	11.111	83.333%
August	3	5.667	-2.667	2.667	7.111	88.889%
September	6	3.333	2.667	2.667	7.111	44.444%
October	4	5	-1	1	1	25%
November	3	4.667	-1.667	1.667	2.778	55.556%
December	4	3.333	.667	.667	.444	16.667%
TOTALS	59		-2.333	20.333	53.889	447.143%
AVERAGE	4.917		-0.233	2.033	5.389	44.714%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.595	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9	5.267	3.733	3.733	13.938	41.481%
July	4	6.533	-2.533	2.533	6.418	63.333%
August	3	5.8	-2.8	2.8	7.84	93.333%
September	6	4.867	1.133	1.133	1.284	18.889%
October	4	5.067	-1.067	1.067	1.138	26.667%
November	3	4.667	-1.667	1.667	2.778	55.556%
December	4	3.933	.067	.067	.004	1.667%
TOTALS	59		-3.133	13	33.4	300.926%
AVERAGE	4.917		-0.448	1.857	4.771	42.989%
Next period forecast		3.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.585	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3					
September	6	5.139	.861	.861	.742	14.352%
October	4	5.306	-1.306	1.306	1.704	32.639%
November	3	4.972	-1.972	1.972	3.89	65.741%
December	4	4.472	-.472	.472	.223	11.806%
TOTALS	59		-2.889	4.611	6.559	124.537%
AVERAGE	4.917		-.722	1.153	1.64	31.134%
Next period forecast		4.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.811	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7	5.167	1.833	1.833	3.361	26.19%
May	4	6.167	-2.167	2.167	4.694	54.167%
June	9	5.167	3.833	3.833	14.694	42.593%
July	4	7	-3	3	9	75%
August	3	5.667	-2.667	2.667	7.111	88.889%
September	6	4.333	1.667	1.667	2.778	27.778%
October	4	4.667	-.667	.667	.444	16.667%
November	3	4.5	-1.5	1.5	2.25	50%
December	4	3.833	.167	.167	.028	4.167%
TOTALS	59		-2.5	17.5	44.361	385.45%
AVERAGE	4.917		-.278	1.944	4.929	42.828%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.517	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4	6.333	-2.333	2.333	5.444	58.333%
August	3	5.81	-2.81	2.81	7.893	93.651%
September	6	5	1	1	1	16.667%
October	4	5.19	-1.19	1.19	1.417	29.762%
November	3	4.762	-1.762	1.762	3.104	58.73%
December	4	4.19	-.19	.19	.036	4.762%
TOTALS	59		-7.286	9.286	18.896	261.905%
AVERAGE	4.917		-1.214	1.548	3.149	43.651%
Next period forecast		3.952	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.173	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3					
September	6					
October	4	5.311	-1.311	1.311	1.719	32.778%
November	3	5.044	-2.044	2.044	4.18	68.148%
December	4	4.578	-.578	.578	.334	14.444%
TOTALS	59		-3.933	3.933	6.233	115.37%
AVERAGE	4.917		-1.311	1.311	2.078	38.457%
Next period forecast		4.378	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.497	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4	5.9	-1.9	1.9	3.61	47.5%
June	9	5.3	3.7	3.7	13.69	41.111%
July	4	6.7	-2.7	2.7	7.29	67.5%
August	3	5.8	-2.8	2.8	7.84	93.333%
September	6	4.6	1.4	1.4	1.96	23.333%
October	4	5	-1	1	1	25%
November	3	4.4	-1.4	1.4	1.96	46.667%
December	4	3.9	.1	.1	.01	2.5%
TOTALS	59		-4.6	15	37.36	346.945%
AVERAGE	4.917		-.575	1.875	4.67	43.368%
Next period forecast		3.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.495	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3	5.75	-2.75	2.75	7.562	91.667%
September	6	5.107	.893	.893	.797	14.881%
October	4	5.25	-1.25	1.25	1.562	31.25%
November	3	4.893	-1.893	1.893	3.583	63.095%
December	4	4.321	-.321	.321	.103	8.036%
TOTALS	59		-5.321	7.107	13.608	208.929%
AVERAGE	4.917		-1.064	1.421	2.722	41.786%
Next period forecast		4.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.13	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	5					
April	7					
May	4					
June	9					
July	4					
August	3					
September	6					
October	4					
November	3	5.073	-2.073	2.073	4.296	69.091%
December	4	4.673	-.673	.673	.453	16.818%
TOTALS	59		-2.745	2.745	4.749	85.909%
AVERAGE	4.917		-1.373	1.373	2.374	42.955%
Next period forecast		4.473	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Diarangi mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

EXPONENTIAL SMOOTHING

1. Vm Inhaler

2. Diarangi menggunakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25	23	2	2	4	8%
March	26	23.2	2.8	2.8	7.84	10.769%
April	28	23.48	4.52	4.52	20.43	16.143%
May	20	23.932	-3.932	3.932	15.461	19.66%
June	22	23.539	-1.539	1.539	2.368	6.995%
July	24	23.385	.615	.615	.378	2.563%
August	20	23.446	-3.446	3.446	11.878	17.232%
September	25	23.102	1.898	1.898	3.603	7.593%
October	23	23.292	-.292	.292	.085	1.268%
November	26	23.262	2.738	2.738	7.494	10.529%
December	21	23.536	-2.536	2.536	6.432	12.077%
TOTALS	283		2.826	26.316	79.97	112.829%
AVERAGE	23.583		.257	2.392	7.27	10.257%
Next period forecast		23.283	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.981	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25	23	2	2	4	8%
March	26	23.4	2.6	2.6	6.76	10%
April	28	23.92	4.08	4.08	16.646	14.571%
May	20	24.736	-4.736	4.736	22.43	23.68%
June	22	23.789	-1.789	1.789	3.2	8.131%
July	24	23.431	.569	.569	.324	2.371%
August	20	23.545	-3.545	3.545	12.566	17.724%
September	25	22.836	2.164	2.164	4.683	8.657%
October	23	23.269	-.269	.269	.072	1.168%
November	26	23.215	2.785	2.785	7.756	10.712%
December	21	23.772	-2.772	2.772	7.684	13.2%
TOTALS	283		1.088	27.308	86.121	118.214%
AVERAGE	23.583		.099	2.483	7.829	10.747%
Next period forecast		23.218	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.093	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25	23	2	2	4	8%
March	26	23.6	2.4	2.4	5.76	9.231%
April	28	24.32	3.68	3.68	13.542	13.143%
May	20	25.424	-5.424	5.424	29.42	27.12%
June	22	23.797	-1.797	1.797	3.228	8.167%
July	24	23.258	.742	.742	.551	3.093%
August	20	23.48	-3.48	3.48	12.113	17.402%
September	25	22.436	2.564	2.564	6.573	10.255%
October	23	23.205	-.205	.205	.042	.893%
November	26	23.144	2.856	2.856	8.158	10.985%
December	21	24.001	-3.001	3.001	9.004	14.289%
TOTALS	283		.335	28.149	92.392	122.578%
AVERAGE	23.583		.03	2.559	8.399	11.143%
Next period forecast		23.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.204	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25	23	2	2	4	8%
March	26	24.4	1.6	1.6	2.56	6.154%
April	28	25.52	2.48	2.48	6.15	8.857%
May	20	27.256	-7.256	7.256	52.65	36.28%
June	22	22.177	-.177	.177	.031	.804%
July	24	22.053	1.947	1.947	3.791	8.112%
August	20	23.416	-3.416	3.416	11.668	17.08%
September	25	21.025	3.975	3.975	15.802	15.901%
October	23	23.807	-.807	.807	.652	3.511%
November	26	23.242	2.758	2.758	7.605	10.607%
December	21	25.173	-4.173	4.173	17.411	19.87%
TOTALS	283		-1.069	30.589	122.321	135.175%
AVERAGE	23.583		-.097	2.781	11.12	12.289%
Next period forecast		22.252	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.687	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25	23	2	2	4	8%
March	26	24.6	1.4	1.4	1.96	5.385%
April	28	25.72	2.28	2.28	5.198	8.143%
May	20	27.544	-7.544	7.544	56.912	37.72%
June	22	21.509	.491	.491	.241	2.233%
July	24	21.902	2.098	2.098	4.403	8.743%
August	20	23.58	-3.58	3.58	12.819	17.902%
September	25	20.716	4.284	4.284	18.352	17.136%
October	23	24.143	-1.143	1.143	1.307	4.97%
November	26	23.229	2.771	2.771	7.68	10.659%
December	21	25.446	-4.446	4.446	19.765	21.17%
TOTALS	283		-1.389	32.038	132.637	142.06%
AVERAGE	23.583		-.126	2.913	12.058	12.915%
Next period forecast		21.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.839	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	23					
February	25	23	2	2	4	8%
March	26	24.8	1.2	1.2	1.44	4.615%
April	28	25.88	2.12	2.12	4.494	7.571%
May	20	27.788	-7.788	7.788	60.653	38.94%
June	22	20.779	1.221	1.221	1.491	5.551%
July	24	21.878	2.122	2.122	4.503	8.842%
August	20	23.788	-3.788	3.788	14.347	18.939%
September	25	20.379	4.621	4.621	21.356	18.485%
October	23	24.538	-1.538	1.538	2.365	6.686%
November	26	23.154	2.846	2.846	8.101	10.947%
December	21	25.715	-4.715	4.715	22.235	22.454%
TOTALS	283		-1.698	33.96	144.986	151.031%
AVERAGE	23.583		-.154	3.087	13.181	13.73%
Next period forecast		21.472	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.014	



$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	8.2	.8	.8	.64	8.889%
April	7	8.28	-1.28	1.28	1.638	18.286%
May	10	8.152	1.848	1.848	3.415	18.48%
June	8	8.337	-.337	.337	.113	4.21%
July	6	8.303	-2.303	2.303	5.304	38.385%
August	8	8.073	-.073	.073	.005	.91%
September	7	8.066	-1.066	1.066	1.135	15.222%
October	11	7.959	3.041	3.041	9.248	27.646%
November	4	8.263	-4.263	4.263	18.174	106.577%
December	8	7.837	.163	.163	.027	2.04%
TOTALS	96		-1.469	17.174	43.7	260.645%
AVERAGE	8		-1.34	1.561	3.973	23.695%
Next period forecast		7.853	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.204	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	8.8	.2	.2	.04	2.222%
April	7	8.88	-1.88	1.88	3.534	26.857%
May	10	8.128	1.872	1.872	3.504	18.72%
June	8	8.877	-.877	.877	.769	10.96%
July	6	8.526	-2.526	2.526	6.381	42.101%
August	8	7.516	.484	.484	.235	6.054%
September	7	7.709	-.709	.709	.503	10.134%
October	11	7.426	3.574	3.574	12.776	32.494%
November	4	8.855	-4.855	4.855	23.575	121.385%
December	8	6.913	1.087	1.087	1.181	13.585%
TOTALS	96		-1.63	20.065	56.498	304.513%
AVERAGE	8		-1.48	1.824	5.136	27.683%
Next period forecast		7.348	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.506	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	9.4	-.4	.4	.16	4.444%
April	7	9.12	-2.12	2.12	4.494	30.286%
May	10	7.636	2.364	2.364	5.588	23.64%
June	8	9.291	-1.291	1.291	1.666	16.135%
July	6	8.387	-2.387	2.387	5.699	39.787%
August	8	6.716	1.284	1.284	1.648	16.048%
September	7	7.615	-.615	.615	.378	8.784%
October	11	7.184	3.816	3.816	14.558	34.687%
November	4	9.855	-5.855	5.855	34.285	146.383%
December	8	5.757	2.243	2.243	5.033	28.042%
TOTALS	96		-.961	24.375	77.51	368.237%
AVERAGE	8		-.087	2.216	7.046	33.476%
Next period forecast		7.327	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.935	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	9	0	0	0	0%
April	7	9	-2	2	4	28.571%
May	10	8	2	2	4	20%
June	8	9	-1	1	1	12.5%
July	6	8.5	-.5	.5	.625	41.667%
August	8	7.25	.75	.75	.563	9.375%
September	7	7.625	-.625	.625	.391	8.929%
October	11	7.313	3.688	3.688	13.598	33.523%
November	4	9.156	-5.156	5.156	26.587	128.906%
December	8	6.578	1.422	1.422	2.022	17.773%
TOTALS	96		-1.422	21.141	62.409	321.244%
AVERAGE	8		-.129	1.922	5.674	29.204%
Next period forecast		7.289	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.633	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	9.6	-.6	.6	.36	6.667%
April	7	9.12	-2.12	2.12	4.494	30.286%
May	10	7.424	2.576	2.576	6.636	25.76%
June	8	9.485	-1.485	1.485	2.205	18.56%
July	6	8.297	-2.297	2.297	5.276	38.283%
August	8	6.459	1.541	1.541	2.373	19.258%
September	7	7.692	-.692	.692	.479	9.884%
October	11	7.138	3.862	3.862	14.912	35.106%
November	4	10.228	-6.228	6.228	38.784	155.692%
December	8	5.246	2.754	2.754	7.587	34.431%
TOTALS	96		-.689	26.154	87.106	393.925%
AVERAGE	8		-.063	2.378	7.919	35.811%
Next period forecast		7.449	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.111	

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	8.6	.4	.4	.16	4.444%
April	7	8.72	-1.72	1.72	2.958	24.571%
May	10	8.204	1.796	1.796	3.226	17.96%
June	8	8.743	-.743	.743	.552	9.285%
July	6	8.52	-.52	.52	.635	42%
August	8	7.764	.236	.236	.056	2.95%
September	7	7.835	-.835	.835	.697	11.925%
October	11	7.584	3.416	3.416	11.667	31.051%
November	4	8.609	-4.609	4.609	21.243	115.226%
December	8	7.226	.774	.774	.599	9.671%
TOTALS	96		-1.805	19.048	51.507	289.084%
AVERAGE	8		-.164	1.732	4.682	26.28%
Next period forecast		7.458	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.392	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	9.2	-.2	.2	.04	2.222%
April	7	9.08	-2.08	2.08	4.326	29.714%
May	10	7.832	2.168	2.168	4.7	21.68%
June	8	9.133	-1.133	1.133	1.283	14.16%
July	6	8.453	-2.453	2.453	6.018	40.885%
August	8	6.981	1.019	1.019	1.038	12.734%
September	7	7.592	-.592	.592	.351	8.464%
October	11	7.237	3.763	3.763	14.16	34.209%
November	4	9.495	-5.495	5.495	30.193	137.37%
December	8	6.198	1.802	1.802	3.247	22.526%
TOTALS	96		-1.201	22.705	69.357	343.966%
AVERAGE	8		-.109	2.064	6.305	31.27%
Next period forecast		7.279	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.776	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	9	9.8	-.8	.8	.64	8.889%
April	7	9.08	-2.08	2.08	4.326	29.714%
May	10	7.208	2.792	2.792	7.795	27.92%
June	8	9.721	-1.721	1.721	2.961	21.51%
July	6	8.172	-2.172	2.172	4.718	36.201%
August	8	6.217	1.783	1.783	3.178	22.285%
September	7	7.822	-.822	.822	.675	11.739%
October	11	7.082	3.918	3.918	15.349	35.617%
November	4	10.608	-6.608	6.608	43.669	165.205%
December	8	4.661	3.339	3.339	11.15	41.74%
TOTALS	96		-.371	28.035	98.462	420.82%
AVERAGE	8		-.034	2.549	8.951	38.256%
Next period forecast		7.666	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.308	

$\alpha = 0,1$

2. Ditaring mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	5.8	.2	.2	.04	3.333%
April	6	5.82	.18	.18	.032	3%
May	7	5.838	1.162	1.162	1.35	16.6%
June	5	5.954	-.954	.954	.91	19.084%
July	6	5.859	.141	.141	.02	2.354%
August	8	5.873	2.127	2.127	4.525	26.589%
September	7	6.086	.914	.914	.836	13.063%
October	6	6.177	-.177	.177	.031	2.951%
November	8	6.159	1.841	1.841	3.388	23.008%
December	5	6.343	-1.343	1.343	1.805	26.868%
TOTALS	74		2.091	11.04	16.938	186.85%
AVERAGE		6.167	.19	1.004	1.54	16.986%
Next period forecast		6.209	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.372	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	5.6	.4	.4	.16	6.667%
April	6	5.68	.32	.32	.102	5.333%
May	7	5.744	1.256	1.256	1.578	17.943%
June	5	5.995	-.995	.995	.99	19.904%
July	6	5.796	.204	.204	.042	3.397%
August	8	5.837	2.163	2.163	4.679	27.038%
September	7	6.27	.73	.73	.534	10.435%
October	6	6.416	-.416	.416	.173	6.927%
November	8	6.333	1.667	1.667	2.781	20.844%
December	5	6.666	-1.666	1.666	2.776	33.32%
TOTALS	74		1.664	11.818	17.813	201.809%
AVERAGE		6.167	.151	1.074	1.619	18.346%
Next period forecast		6.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.407	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	5.4	.6	.6	.36	10%
April	6	5.38	.42	.42	.176	7%
May	7	5.706	1.294	1.294	1.674	18.486%
June	5	6.094	-1.094	1.094	1.197	21.884%
July	6	5.766	.234	.234	.055	3.901%
August	8	5.836	2.164	2.164	4.682	27.048%
September	7	6.485	.515	.515	.265	7.353%
October	6	6.64	-.64	.64	.409	10.662%
November	8	6.448	1.552	1.552	2.409	19.402%
December	5	6.913	-1.913	1.913	3.661	38.269%
TOTALS	74		1.131	12.426	18.89	214.005%
AVERAGE		6.167	.103	1.13	1.717	19.455%
Next period forecast		6.339	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.449	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	5.2	.8	.8	.64	13.333%
April	6	5.52	.48	.48	.23	8%
May	7	5.712	1.288	1.288	1.659	18.4%
June	5	6.227	-1.227	1.227	1.506	24.544%
July	6	5.736	.264	.264	.07	4.395%
August	8	5.842	2.158	2.158	4.658	26.978%
September	7	6.705	.295	.295	.087	4.213%
October	6	6.823	-.823	.823	.677	13.717%
November	8	6.494	1.506	1.506	2.269	18.827%
December	5	7.096	-2.096	2.096	4.394	41.926%
TOTALS	74		.644	12.938	20.19	224.333%
AVERAGE		6.167	.059	1.176	1.835	20.394%
Next period forecast		6.258	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.498	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	5	1	1	1	16.667%
April	6	5.5	.5	.5	.25	8.333%
May	7	5.75	1.25	1.25	1.563	17.857%
June	5	6.375	-1.375	1.375	1.891	27.5%
July	6	5.688	.313	.313	.098	5.208%
August	8	5.844	2.156	2.156	4.649	26.953%
September	7	6.922	.078	.078	.006	1.116%
October	6	6.961	-.961	.961	.923	16.016%
November	8	6.48	1.52	1.52	2.309	18.994%
December	5	7.24	-2.24	2.24	5.019	44.805%
TOTALS	74		.24	13.393	21.707	233.449%
AVERAGE		6.167	.022	1.218	1.973	21.223%
Next period forecast		6.12	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.553	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	4.8	1.2	1.2	1.44	20%
April	6	5.52	.48	.48	.23	8%
May	7	5.808	1.192	1.192	1.421	17.029%
June	5	6.523	-1.523	1.523	2.32	30.464%
July	6	5.609	.391	.391	.153	6.512%
August	8	5.844	2.156	2.156	4.65	26.954%
September	7	7.137	-.137	.137	.019	1.964%
October	6	7.055	-1.055	1.055	1.113	17.583%
November	8	6.422	1.578	1.578	2.49	19.725%
December	5	7.369	-2.369	2.369	5.611	47.376%
TOTALS	74		-.087	14.081	23.447	245.607%
AVERAGE		6.167	-.008	1.28	2.132	22.328%
Next period forecast		5.948	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.614	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	4.6	1.4	1.4	1.96	23.333%
April	6	5.58	.42	.42	.176	7%
May	7	5.874	1.126	1.126	1.268	16.086%
June	5	6.662	-1.662	1.662	2.763	33.244%
July	6	5.499	.501	.501	.251	8.356%
August	8	5.85	2.15	2.15	4.624	26.88%
September	7	7.355	-.355	.355	.126	5.07%
October	6	7.106	-1.106	1.106	1.224	18.441%
November	8	6.332	1.668	1.668	2.782	20.851%
December	5	7.5	-2.5	2.5	6.248	49.992%
TOTALS	74		-.357	14.889	25.423	259.252%
AVERAGE		6.167	-.032	1.354	2.311	23.568%
Next period forecast		5.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.681	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	4.4	1.6	1.6	2.56	26.667%
April	6	5.68	.32	.32	.102	5.333%
May	7	5.936	1.064	1.064	1.132	15.2%
June	5	6.787	-1.787	1.787	3.194	35.744%
July	6	5.357	.643	.643	.413	10.709%
August	8	5.871	2.129	2.129	4.531	26.606%
September	7	7.574	-.574	.574	.33	8.204%
October	6	7.115	-1.115	1.115	1.243	18.581%
November	8	6.223	1.777	1.777	3.158	22.213%
December	5	7.645	-2.645	2.645	6.994	52.892%
TOTALS	74		-.589	15.653	27.656	272.15%
AVERAGE		6.167	-.054	1.423	2.514	24.741%
Next period forecast		5.529	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.753	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	4	6	-2	2	4	50%
March	6	4.2	1.8	1.8	3.24	30%
April	6	5.82	.18	.18	.032	3%
May	7	5.982	1.018	1.018	1.036	14.543%
June	5	6.898	-1.898	1.898	3.603	37.964%
July	6	5.19	.81	.81	.656	13.503%
August	8	5.919	2.081	2.081	4.331	26.013%
September	7	7.792	-.792	.792	.627	11.313%
October	6	7.079	-1.079	1.079	1.165	17.987%
November	8	6.108	1.892	1.892	3.58	23.651%
December	5	7.811	-2.811	2.811	7.901	56.216%
TOTALS	74		-.799	16.361	30.171	284.189%
AVERAGE		6.167	-.073	1.487	2.743	25.835%
Next period forecast		5.281	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.831	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	2.5	.5	.5	.25	16.667%
April	1	2.55	-1.55	1.55	2.403	155%
May	4	2.395	1.605	1.605	2.576	40.125%
June	5	2.556	2.445	2.445	5.976	48.89%
July	6	2.8	3.2	3.2	10.24	53.334%
August	4	3.12	.88	.88	.774	22.001%
September	3	3.208	-.208	.208	.043	6.932%
October	2	3.187	-1.187	1.187	1.409	59.358%
November	4	3.068	.932	.932	.868	23.289%
December	3	3.162	-.162	.162	.026	5.387%
TOTALS	44		11.454	17.668	49.565	502.411%
AVERAGE		3.667	1.041	1.606	4.506	45.674%
Next period forecast		3.145	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.347	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	4	-1	1	1	33.333%
April	1	3.6	-2.6	2.6	6.76	260%
May	4	2.56	1.44	1.44	2.074	36%
June	5	3.136	1.864	1.864	3.474	37.28%
July	6	3.882	2.118	2.118	4.488	35.307%
August	4	4.729	-.729	.729	.531	18.224%
September	3	4.437	-1.437	1.437	2.066	47.913%
October	2	3.862	-1.862	1.862	3.469	93.121%
November	4	3.117	.883	.883	.779	22.064%
December	3	3.47	-.47	.47	.221	15.682%
TOTALS	44		3.206	19.404	49.862	670.353%
AVERAGE		3.667	.291	1.764	4.533	60.941%
Next period forecast		3.282	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.354	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	5.5	-2.5	2.5	6.25	83.333%
April	1	3.75	-2.75	2.75	7.563	275%
May	4	1.825	2.175	2.175	4.731	54.375%
June	5	3.348	1.653	1.653	2.731	33.05%
July	6	4.504	1.496	1.496	2.237	24.929%
August	4	5.551	-1.551	1.551	2.406	38.782%
September	3	4.465	-1.465	1.465	2.147	48.846%
October	2	3.44	-1.44	1.44	2.072	71.981%
November	4	2.432	1.568	1.568	2.459	39.203%
December	3	3.53	-.53	.53	.28	17.652%
TOTALS	44		1.656	22.127	57.877	758.58%
AVERAGE		3.667	.151	2.012	5.262	68.962%
Next period forecast		3.159	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.536	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	4.5	-1.5	1.5	2.25	50%
April	1	3.75	-2.75	2.75	7.563	275%
May	4	2.375	1.625	1.625	2.641	40.625%
June	5	3.188	1.813	1.813	3.285	36.25%
July	6	4.094	1.906	1.906	3.634	31.771%
August	4	5.047	-1.047	1.047	1.096	26.172%
September	3	4.523	-1.523	1.523	2.321	50.781%
October	2	3.762	-1.762	1.762	3.104	88.086%
November	4	2.881	1.119	1.119	1.252	27.979%
December	3	3.44	-.44	.44	.194	14.681%
TOTALS	44		2.44	20.485	52.339	712.773%
AVERAGE		3.667	.222	1.862	4.758	64.798%
Next period forecast		3.22	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.412	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	6	-3	3	9	100%
April	1	3.6	-2.6	2.6	6.76	260%
May	4	1.52	2.48	2.48	6.15	62%
June	5	3.504	1.496	1.496	2.238	29.92%
July	6	4.701	1.299	1.299	1.688	21.653%
August	4	5.74	-1.74	1.74	3.028	43.504%
September	3	4.348	-1.348	1.348	1.817	44.934%
October	2	3.27	-1.27	1.27	1.612	63.48%
November	4	2.254	1.746	1.746	3.049	43.652%
December	3	3.651	-.651	.651	.424	21.693%
TOTALS	44		1.413	22.63	60.766	762.265%
AVERAGE		3.667	.128	2.057	5.524	69.297%
Next period forecast		3.13	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.598	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	5	-2	2	4	66.667%
April	1	3.8	-2.8	2.8	7.84	280%
May	4	2.12	1.88	1.88	3.534	47%
June	5	3.248	1.752	1.752	3.07	35.04%
July	6	4.209	1.791	1.791	2.893	28.347%
August	4	5.32	-1.32	1.32	1.742	32.992%
September	3	4.528	-1.528	1.528	2.334	50.929%
October	2	3.611	-1.611	1.611	2.596	80.557%
November	4	2.644	1.356	1.356	1.837	33.889%
December	3	3.458	-.458	.458	.21	15.259%
TOTALS	44		1.972	21.405	55.055	742.109%
AVERAGE		3.667	.179	1.946	5.005	67.464%
Next period forecast		3.183	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.473	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	7	2	5	5	25	71.429%
March	3	6.5	-3.5	3.5	12.25	116.667%
April	1	3.35	-2.35	2.35	5.523	235%
May	4	1.235	2.765	2.765	7.645	69.125%
June	5	3.724	1.277	1.277	1.629	25.53%
July	6	4.872	1.128	1.128	1.272	18.794%
August	4	5.887	-1.887	1.887	3.562	47.181%
September	3	4.189	-1.189	1.189	1.413	39.624%
October	2	3.119	-1.119	1.119	1.252	55.944%
November	4	2.112	1.888	1.888	3.565	47.203%
December	3	3.811	-.811	.811	.658	27.04%
TOTALS	44		1.201	22.913	63.768	753.536%
AVERAGE		3.667	.109	2.083	5.797	68.503%
Next period forecast		3.081	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.662	

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	2.2	.8	.8	.64	26.667%
April	7	2.28	4.72	4.72	22.278	67.429%
May	10	2.752	7.248	7.248	52.534	72.48%
June	4	3.477	-.523	.523	.274	13.08%
July	3	3.529	-.529	.529	.28	17.637%
August	2	3.476	-1.476	1.476	2.179	73.81%
September	5	3.329	1.671	1.671	2.794	33.428%
October	4	3.496	-.504	.504	.254	12.607%
November	2	3.546	-1.546	1.546	2.391	77.308%
December	2	3.392	-1.392	1.392	1.936	69.577%
TOTALS	48		12.524	22.41	89.56	514.023%
AVERAGE	4		1.139	2.037	8.142	46.729%
Next period forecast		3.252	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.155	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	2.8	.2	.2	.04	6.667%
April	7	2.88	4.12	4.12	16.974	58.857%
May	10	4.528	5.472	5.472	29.943	54.72%
June	4	6.717	-2.717	2.717	7.381	67.92%
July	3	5.63	-2.63	2.63	6.917	87.669%
August	2	4.578	-2.578	2.578	6.646	128.902%
September	5	3.547	1.453	1.453	2.112	29.063%
October	4	4.128	-.128	.128	.016	3.202%
November	2	4.077	-2.077	2.077	4.313	103.843%
December	2	3.246	-1.246	1.246	1.553	62.306%
TOTALS	48		1.869	24.621	79.896	653.15%
AVERAGE	4		.17	2.238	7.263	59.377%
Next period forecast		2.748	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.979	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.4	-.4	.4	.16	13.333%
April	7	3.12	3.88	3.88	15.054	55.429%
May	10	5.836	4.164	4.164	17.339	41.64%
June	4	8.751	-4.751	4.751	22.57	118.77%
July	3	5.425	-2.425	2.425	5.882	80.841%
August	2	3.728	-1.728	1.728	2.985	86.379%
September	5	2.518	2.482	2.482	6.159	49.635%
October	4	4.255	-.255	.255	.065	6.387%
November	2	4.077	-2.077	2.077	4.312	103.832%
December	2	2.623	-.623	.623	.388	31.15%
TOTALS	48		267	24.784	78.915	637.395%
AVERAGE	4		.024	2.253	7.174	57.945%
Next period forecast		2.187	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.961	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3	0	0	0	0%
April	7	3	4	4	16	57.143%
May	10	5	5	5	25	50%
June	4	7.5	-3.5	3.5	12.25	87.5%
July	3	5.75	-2.75	2.75	7.563	91.667%
August	2	4.375	-2.375	2.375	5.641	118.75%
September	5	3.188	1.813	1.813	3.285	36.25%
October	4	4.094	-.094	.094	.009	2.344%
November	2	4.047	-2.047	2.047	4.19	102.344%
December	2	3.023	-1.023	1.023	1.047	51.172%
TOTALS	48		1.023	24.602	78.984	647.169%
AVERAGE	4		.093	2.237	7.18	58.834%
Next period forecast		2.512	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.962	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.6	-.6	.6	.36	20%
April	7	3.12	3.88	3.88	15.054	55.429%
May	10	6.224	3.776	3.776	14.258	37.76%
June	4	9.245	-5.245	5.245	27.508	131.12%
July	3	5.049	-2.049	2.049	4.198	68.299%
August	2	3.41	-1.41	1.41	1.988	70.49%
September	5	2.282	2.718	2.718	7.388	54.361%
October	4	4.456	-.456	.456	.208	11.41%
November	2	4.091	-2.091	2.091	4.373	104.564%
December	2	2.418	-.418	.418	.175	20.913%
TOTALS	48		105	24.644	79.311	624.344%
AVERAGE	4		.01	2.24	7.228	56.759%
Next period forecast		2.084	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.972	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.2	-.2	.2	.04	6.667%
April	7	3.08	3.92	3.92	15.366	56%
May	10	5.432	4.568	4.568	20.867	45.68%
June	4	8.173	-4.173	4.173	17.412	104.32%
July	3	5.669	-2.669	2.669	7.124	88.971%
August	2	4.068	-2.068	2.068	4.275	103.382%
September	5	2.827	2.173	2.173	4.722	43.459%
October	4	4.131	-.131	.131	.017	3.271%
November	2	4.052	-2.052	2.052	4.212	102.617%
December	2	2.821	-.821	.821	.674	41.047%
TOTALS	48		.547	24.775	78.709	645.412%
AVERAGE	4		.05	2.252	7.155	58.674%
Next period forecast		2.328	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.957	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.8	-.8	.8	.64	26.667%
April	7	3.08	3.92	3.92	15.366	56%
May	10	6.608	3.392	3.392	11.506	33.92%
June	4	9.661	-5.661	5.661	32.045	141.52%
July	3	4.566	-1.566	1.566	2.453	52.203%
August	2	3.157	-1.157	1.157	1.338	57.83%
September	5	2.116	2.884	2.884	8.319	57.687%
October	4	4.712	-.712	.712	.506	17.789%
November	2	4.071	-2.071	2.071	4.29	103.558%
December	2	2.207	-.207	.207	.043	10.356%
TOTALS	48		.023	24.37	80.505	607.529%
AVERAGE	4		.002	2.215	7.319	55.23%
Next period forecast		2.021	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.991	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Suspensi 500 mg/5 ml 100 ml

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	40.2	4.8	4.8	23.04	10.667%
April	42	40.68	1.32	1.32	1.742	3.143%
May	40	40.812	-.812	.812	.659	2.03%
June	43	40.731	2.269	2.269	5.149	5.277%
July	42	40.958	1.042	1.042	1.086	2.482%
August	39	41.062	-2.062	2.062	4.252	5.287%
September	36	40.856	-4.856	4.856	23.578	13.488%
October	40	40.37	-.37	.37	.137	.925%
November	41	40.333	.667	.667	.445	1.626%
December	40	40.4	-.4	.4	.16	1%
TOTALS	490		3.599	20.598	64.249	50.687%
AVERAGE	40.833		.327	1.873	5.841	4.608%
Next period forecast		40.36	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.672	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	40.8	4.2	4.2	17.64	9.333%
April	42	42.48	-.48	.48	.23	1.143%
May	40	42.288	-2.288	2.288	5.235	5.72%
June	43	41.373	1.627	1.627	2.648	3.784%
July	42	42.024	-.024	.024	.001	.056%
August	39	42.014	-3.014	3.014	9.085	7.729%
September	36	40.809	-4.809	4.809	23.122	13.357%
October	40	38.885	1.115	1.115	1.243	2.787%
November	41	39.331	1.669	1.669	2.785	4.071%
December	40	39.999	.001	.001	0	.003%
TOTALS	490		-.002	21.227	65.989	52.746%
AVERAGE	40.833		.0	1.93	6	4.795%
Next period forecast		40	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.708	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	41.4	3.6	3.6	12.96	8%
April	42	43.92	-1.92	1.92	3.686	4.571%
May	40	42.576	-2.576	2.576	6.636	6.44%
June	43	40.773	2.227	2.227	4.96	5.18%
July	42	42.332	-.332	.332	.11	.79%
August	39	42.1	-3.1	3.1	9.607	7.948%
September	36	39.93	-3.93	3.93	15.444	10.916%
October	40	37.179	2.821	2.821	7.958	7.053%
November	41	39.154	1.846	1.846	3.409	4.503%
December	40	40.446	-.446	.446	.199	1.115%
TOTALS	490		.191	24.798	68.97	61.278%
AVERAGE	40.833		.017	2.254	6.27	5.571%
Next period forecast		40.134	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.768	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	41	4	4	16	8.889%
April	42	43	-1	1	.4	2.381%
May	40	42.5	-2.5	2.5	6.25	6.25%
June	43	41.25	1.75	1.75	3.063	4.07%
July	42	42.125	-.125	.125	.016	.298%
August	39	42.063	-3.063	3.063	9.379	7.853%
September	36	40.531	-4.531	4.531	20.532	12.587%
October	40	38.266	1.734	1.734	3.008	4.336%
November	41	39.133	1.867	1.867	3.486	4.554%
December	40	40.066	-.066	.066	.004	.166%
TOTALS	490		.066	22.637	66.738	56.145%
AVERAGE	40.833		.006	2.058	6.067	5.104%
Next period forecast		40.033	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.723	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	41.6	3.4	3.4	11.56	7.556%
April	42	44.32	-2.32	2.32	5.382	5.524%
May	40	42.464	-2.464	2.464	6.071	6.16%
June	43	40.493	2.507	2.507	6.286	5.831%
July	42	42.499	-.499	.499	.249	1.187%
August	39	42.1	-3.1	3.1	9.608	7.948%
September	36	39.62	-3.62	3.62	13.104	10.055%
October	40	36.724	3.276	3.276	10.732	8.19%
November	41	39.345	1.655	1.655	2.74	4.037%
December	40	40.669	-.669	.669	.448	1.672%
TOTALS	490		.167	25.51	70.18	62.922%
AVERAGE	40.833		.015	2.319	6.38	5.72%
Next period forecast		40.134	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.792	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	40.6	4.4	4.4	19.36	9.778%
April	42	41.92	-.08	.08	.006	.19%
May	40	41.944	-1.944	1.944	3.779	4.86%
June	43	41.361	1.639	1.639	2.687	3.812%
July	42	41.853	-.147	.147	.022	.351%
August	39	41.897	-2.897	2.897	8.391	7.428%
September	36	41.028	-5.028	5.028	25.278	13.966%
October	40	39.519	.481	.481	.231	1.201%
November	41	39.664	1.336	1.336	1.786	3.26%
December	40	40.065	-.065	.065	.004	.161%
TOTALS	490		.151	20.017	65.545	49.769%
AVERAGE	40.833		.014	1.82	5.959	4.524%
Next period forecast		40.045	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.699	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	41.2	3.8	3.8	14.44	8.444%
April	42	43.48	-1.48	1.48	2.19	3.524%
May	40	42.592	-2.592	2.592	6.718	6.48%
June	43	41.037	1.963	1.963	3.854	4.566%
July	42	42.215	-.215	.215	.046	.511%
August	39	42.086	-3.086	3.086	9.523	7.913%
September	36	40.234	-4.234	4.234	17.93	11.762%
October	40	37.694	2.306	2.306	5.319	5.766%
November	41	39.078	1.923	1.923	3.696	4.689%
December	40	40.231	-.231	.231	.053	.577%
TOTALS	490		.154	23.83	67.77	58.994%
AVERAGE	40.833		.014	2.166	6.161	5.363%
Next period forecast		40.092	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.744	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	40					
February	42	40	2	2	4	4.762%
March	45	41.8	3.2	3.2	10.24	7.111%
April	42	44.68	-2.68	2.68	7.182	6.381%
May	40	42.268	-2.268	2.268	5.144	5.67%
June	43	40.227	2.773	2.773	7.691	6.449%
July	42	42.723	-.723	.723	.522	1.721%
August	39	42.072	-3.072	3.072	9.439	7.878%
September	36	39.307	-3.307	3.307	10.938	9.187%
October	40	36.331	3.669	3.669	13.464	9.173%
November	41	39.633	1.367	1.367	1.868	3.334%
December	40	40.863	-.863	.863	.745	2.158%
TOTALS	490		.096	25.923	71.233	63.824%
AVERAGE	40.833		.009	2.357	6.476	5.802%
Next period forecast		40.086	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.813	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	7.8	.2	.2	.04	2.5%
April	9	7.82	1.18	1.18	1.392	13.111%
May	10	7.938	2.062	2.062	4.252	20.62%
June	11	8.144	2.856	2.856	8.156	25.962%
July	5	8.43	-3.43	3.43	11.763	68.596%
August	8	8.087	-.087	.087	.008	1.085%
September	7	8.078	-1.078	1.078	1.162	15.402%
October	8	7.97	.03	.03	.001	.371%
November	7	7.973	-.973	.973	.947	13.904%
December	10	7.876	2.124	2.124	4.512	21.24%
TOTALS	97		.884		36.233	216.124%
AVERAGE	8.083		.08	1.456	3.294	19.648%
Next period forecast		8.088	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.006	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	7.2	.8	.8	.64	10%
April	9	7.52	1.48	1.48	2.19	16.444%
May	10	8.112	1.888	1.888	3.565	18.88%
June	11	8.867	2.133	2.133	4.549	19.389%
July	5	9.72	-4.72	4.72	22.281	94.406%
August	8	7.832	.168	.168	.028	2.098%
September	7	7.899	-.899	.899	.809	12.847%
October	8	7.54	.46	.46	.212	5.755%
November	7	7.724	-.724	.724	.524	10.339%
December	10	7.434	2.566	2.566	6.583	25.657%
TOTALS	97		1.151	17.838	45.381	249.15%
AVERAGE	8.083		.105	1.622	4.126	22.65%
Next period forecast		8.461	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.246	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	6.6	1.4	1.4	1.96	17.5%
April	9	7.58	1.42	1.42	2.016	15.778%
May	10	8.574	1.426	1.426	2.033	14.26%
June	11	9.572	1.428	1.428	2.039	12.98%
July	5	10.572	-5.572	5.572	31.043	111.433%
August	8	6.671	1.329	1.329	1.765	16.606%
September	7	7.601	-.601	.601	.362	8.592%
October	8	7.18	.82	.82	.672	10.245%
November	7	7.754	-.754	.754	.569	10.773%
December	10	7.226	2.774	2.774	7.694	27.738%
TOTALS	97		1.668	19.523	54.153	279.238%
AVERAGE	8.083		.152	1.775	4.923	25.385%
Next period forecast		9.168	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.453	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	7	1	1	1	12.5%
April	9	7.5	1.5	1.5	2.25	16.667%
May	10	8.25	1.75	1.75	3.063	17.5%
June	11	9.125	1.875	1.875	3.516	17.045%
July	5	10.063	-5.063	5.063	25.629	101.25%
August	8	7.531	.469	.469	.22	5.859%
September	7	7.766	-.766	.766	.586	10.938%
October	8	7.383	.617	.617	.381	7.715%
November	7	7.691	-.691	.691	.478	9.877%
December	10	7.346	2.654	2.654	7.045	26.543%
TOTALS	97		1.346	18.385	48.167	259.227%
AVERAGE	8.083		.122	1.671	4.379	23.566%
Next period forecast		8.673	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.313	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	6.4	1.6	1.6	2.56	20%
April	9	7.68	1.32	1.32	1.742	14.667%
May	10	8.736	1.264	1.264	1.598	12.64%
June	11	9.747	1.253	1.253	1.57	11.389%
July	5	10.749	-5.749	5.749	33.056	114.989%
August	8	6.15	1.85	1.85	3.423	23.126%
September	7	7.63	-.63	.63	.397	9%
October	8	7.126	.874	.874	.764	10.925%
November	7	7.825	-.825	.825	.681	11.789%
December	10	7.165	2.835	2.835	8.037	28.35%
TOTALS	97		1.791	20.2	57.827	290.207%
AVERAGE	8.083		.163	1.836	5.257	26.382%
Next period forecast		9.433	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.535	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	6.8	1.2	1.2	1.44	15%
April	9	7.52	1.48	1.48	2.19	16.444%
May	10	8.408	1.592	1.592	2.534	15.92%
June	11	9.363	1.637	1.637	2.679	14.88%
July	5	10.345	-5.345	5.345	28.572	106.906%
August	8	7.138	.862	.862	.743	10.774%
September	7	7.655	-.655	.655	.429	9.361%
October	8	7.262	.738	.738	.544	9.224%
November	7	7.705	-.705	.705	.497	10.069%
December	10	7.282	2.718	2.718	7.388	27.181%
TOTALS	97		1.521	18.932	51.017	269.091%
AVERAGE	8.083		.138	1.721	4.638	24.463%
Next period forecast		8.913	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.381	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	6	8	-2	2	4	33.333%
March	8	6.2	1.8	1.8	3.24	22.5%
April	9	7.82	1.18	1.18	1.392	13.111%
May	10	8.882	1.118	1.118	1.25	11.18%
June	11	9.888	1.112	1.112	1.236	10.107%
July	5	10.889	-5.889	5.889	34.678	117.776%
August	8	5.589	2.411	2.411	5.813	30.139%
September	7	7.759	-.759	.759	.576	10.841%
October	8	7.076	.924	.924	.854	11.551%
November	7	7.908	-.908	.908	.824	12.966%
December	10	7.091	2.909	2.909	8.464	29.092%
TOTALS	97		1.899	21.01	62.327	302.598%
AVERAGE	8.083		.173	1.91	5.666	27.509%
Next period forecast		9.709	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.632	

2. Diarahkan mengemukakan dan memperbahayak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	1.2	.8	.8	.64	40%
April	2	1.28	.72	.72	.518	36%
May	3	1.352	1.648	1.648	2.716	54.933%
June	1	1.517	-.517	.517	.267	51.68%
July	1	1.465	-.465	.465	.216	46.512%
August	3	1.419	1.581	1.581	2.501	52.713%
September	5	1.577	3.423	3.423	11.719	68.465%
October	4	1.919	2.081	2.081	4.33	52.023%
November	6	2.127	3.873	3.873	14.999	64.547%
December	3	2.514	-.486	.486	.236	16.185%
TOTALS	34		15.63	17.594	42.142	549.726%
AVERAGE	2.833		1.421	1.599	3.831	49.975%
Next period forecast		2.563	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.164	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	1.8	-.2	.2	.04	10%
April	2	1.88	.12	.12	.014	6%
May	3	1.928	1.072	1.072	1.149	35.733%
June	1	2.357	-.357	.357	1.841	135.68%
July	1	1.814	-.814	.814	.663	81.408%
August	3	1.488	1.512	1.512	2.285	50.385%
September	5	2.093	2.907	2.907	8.45	58.139%
October	4	3.256	-.744	.744	.554	18.604%
November	6	3.554	2.446	2.446	5.985	40.775%
December	3	4.532	-1.532	1.532	2.347	51.07%
TOTALS	34		7.298	14.704	27.329	554.461%
AVERAGE	2.833		.663	1.337	2.484	50.406%
Next period forecast		3.919	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.743	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	2.4	-.4	.4	.16	20%
April	2	2.12	-.12	.12	.014	6%
May	3	2.036	.964	.964	.929	32.133%
June	1	2.711	-.711	.711	2.927	171.08%
July	1	1.513	-.513	.513	.263	51.324%
August	3	1.154	1.846	1.846	3.408	61.534%
September	5	2.446	2.554	2.554	6.522	51.076%
October	4	4.234	-.234	.234	.055	5.846%
November	6	4.07	1.93	1.93	3.724	32.164%
December	3	5.421	-2.421	2.421	5.861	80.702%
TOTALS	34		3.895	14.693	27.864	578.527%
AVERAGE	2.833		.354	1.336	2.533	52.593%
Next period forecast		3.726	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.76	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	1.4	.6	.6	.36	30%
April	2	1.52	.48	.48	.23	24%
May	3	1.616	1.384	1.384	1.915	46.133%
June	1	1.893	-.893	.893	.797	89.28%
July	1	1.714	-.714	.714	.51	71.424%
August	3	1.571	1.429	1.429	2.041	47.62%
September	5	1.857	3.143	3.143	9.878	62.858%
October	4	2.486	1.514	1.514	2.293	37.858%
November	6	2.789	3.211	3.211	10.313	53.524%
December	3	3.431	-.431	.431	.186	14.361%
TOTALS	34		11.723	15.799	32.524	543.725%
AVERAGE	2.833		1.066	1.436	2.957	49.43%
Next period forecast		3.345	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.901	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	2	0	0	0	0%
April	2	2	0	0	0	0%
May	3	2	1	1	1	33.333%
June	1	2.5	-.5	.5	2.25	150%
July	1	1.75	-.75	.75	.563	75%
August	3	1.375	1.625	1.625	2.641	54.167%
September	5	2.188	2.813	2.813	7.91	56.25%
October	4	3.594	-.406	.406	.165	10.156%
November	6	3.797	2.203	2.203	4.854	36.719%
December	3	4.898	-1.898	1.898	3.604	63.281%
TOTALS	34		5.898	14.195	26.986	545.573%
AVERAGE	2.833		.536	1.29	2.453	49.598%
Next period forecast		3.949	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.732	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	2.6	-.6	.6	.36	30%
April	2	2.12	-.12	.12	.014	6%
May	3	2.024	.976	.976	.953	32.533%
June	1	2.805	-.805	.805	3.257	180.48%
July	1	1.361	-.361	.361	.13	36.096%
August	3	1.072	1.928	1.928	3.716	64.26%
September	5	2.614	2.386	2.386	5.691	47.711%
October	4	4.523	-.523	.523	.273	13.072%
November	6	4.105	1.895	1.895	3.593	31.59%
December	3	5.621	-2.621	2.621	6.869	87.364%
TOTALS	34		3.155	15.214	28.857	595.774%
AVERAGE	2.833		.287	1.383	2.623	54.161%
Next period forecast		3.524	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.791	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	1.6	.4	.4	.16	20%
April	2	1.72	.28	.28	.078	14%
May	3	1.804	1.196	1.196	1.43	39.867%
June	1	2.163	-.163	.163	1.352	116.28%
July	1	1.814	-.814	.814	.663	81.396%
August	3	1.57	1.43	1.43	2.046	47.674%
September	5	1.999	3.001	3.001	9.007	60.023%
October	4	2.899	1.101	1.101	1.212	27.52%
November	6	3.229	2.771	2.771	7.676	46.176%
December	3	4.061	-1.061	1.061	1.125	35.353%
TOTALS	34		9.141	15.216	28.749	554.957%
AVERAGE	2.833		.831	1.383	2.614	50.451%
Next period forecast		3.742	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.787	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	2.2	-.2	.2	.04	10%
April	2	2.08	-.08	.08	.006	4%
May	3	2.032	.968	.968	.937	32.267%
June	1	2.613	-.613	.613	2.601	161.28%
July	1	1.645	-.645	.645	.416	64.512%
August	3	1.258	1.742	1.742	3.034	58.065%
September	5	2.303	2.697	2.697	7.273	53.936%
October	4	3.921	-.079	.079	.006	1.968%
November	6	3.969	2.031	2.031	4.127	33.858%
December	3	5.187	-2.187	2.187	4.785	72.914%
TOTALS	34		4.792	14.242	27.226	559.465%
AVERAGE	2.833		.436	1.295	2.475	50.86%
Next period forecast		3.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.739	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	3	1	2	2	4	66.667%
March	2	2.8	-.8	.8	.64	40%
April	2	2.08	-.08	.08	.006	4%
May	3	2.008	.992	.992	.984	33.067%
June	1	2.901	-.901	.901	3.613	190.08%
July	1	1.19	-.19	.19	.036	19.008%
August	3	1.019	1.981	1.981	3.924	66.033%
September	5	2.802	2.198	2.198	4.832	43.962%
October	4	4.78	-.78	.78	.609	19.505%
November	6	4.078	1.922	1.922	3.694	32.033%
December	3	5.808	-2.808	2.808	7.884	93.593%
TOTALS	34		2.534	15.652	30.222	607.948%
AVERAGE	2.833		.23	1.423	2.747	55.268%
Next period forecast		3.281	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.832	



$\alpha = 0,1$

2. Ditrang mengemukakan dan mempernyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	54.2	-4.2	4.2	17.64	8.4%
April	48	53.78	-5.78	5.78	33.408	12.042%
May	60	53.202	6.798	6.798	46.213	11.33%
June	55	53.882	1.118	1.118	1.25	2.033%
July	53	53.994	-994	994	.987	1.875%
August	54	53.894	.106	.106	.011	.196%
September	50	53.905	-3.905	3.905	15.248	7.81%
October	56	53.514	2.486	2.486	6.178	4.439%
November	47	53.763	-6.763	6.763	45.737	14.389%
December	49	53.087	-4.087	4.087	16.7	8.34%
TOTALS	632	-13.22	38.236	187.374	74.424%	
AVERAGE	52.667	-1.202	3.476	17.034	6.766%	
Next period forecast		52.678	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	4.563		

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	54.8	-4.8	4.8	23.04	9.6%
April	48	52.88	-4.88	4.88	23.814	10.167%
May	60	50.928	9.072	9.072	82.301	15.12%
June	55	54.557	.443	.443	.196	.806%
July	53	54.734	-1.734	1.734	3.007	3.272%
August	54	54.04	-.04	.04	.002	.075%
September	50	54.024	-4.024	4.024	16.195	8.049%
October	56	52.415	3.585	3.585	12.855	6.403%
November	47	53.849	-6.849	6.849	46.905	14.572%
December	49	51.109	-2.109	2.109	4.449	4.305%
TOTALS	632	-9.336	39.537	216.765	75.938%	
AVERAGE	52.667	-8.49	3.594	19.706	6.903%	
Next period forecast		50.266	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	4.908		

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	55.4	-5.4	5.4	29.16	10.8%
April	48	51.62	-3.62	3.62	13.104	7.542%
May	60	49.086	10.914	10.914	119.115	18.19%
June	55	56.726	-1.726	1.726	2.978	3.138%
July	53	55.518	-2.518	2.518	6.339	4.75%
August	54	53.755	.245	.245	.06	.453%
September	50	53.927	-3.927	3.927	15.418	7.853%
October	56	51.178	4.822	4.822	23.252	8.611%
November	47	54.553	-7.553	7.553	57.054	16.071%
December	49	49.266	-.266	.266	.071	.543%
TOTALS	632	-7.029	42.99	270.552	81.522%	
AVERAGE	52.667	-6.39	3.908	24.596	7.411%	
Next period forecast		49.08	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	5.483		

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	55	-5	5	25	10%
April	48	52.5	-4.5	4.5	20.25	9.375%
May	60	50.25	9.75	9.75	95.063	16.25%
June	55	55.125	-.125	.125	.016	.227%
July	53	55.063	-2.063	2.063	4.254	3.892%
August	54	54.031	-.031	.031	.001	.058%
September	50	54.016	-4.016	4.016	16.125	8.031%
October	56	52.008	3.992	3.992	15.938	7.129%
November	47	54.004	-7.004	7.004	49.055	14.902%
December	49	50.502	-1.502	1.502	2.256	3.065%
TOTALS	632	-8.498	39.982	231.956	76.5%	
AVERAGE	52.667	-7.73	3.635	21.087	6.955%	
Next period forecast		49.751	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	5.077		

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	55.6	-5.6	5.6	31.36	11.2%
April	48	51.12	-3.12	3.12	9.734	6.5%
May	60	48.624	11.376	11.376	129.413	18.96%
June	55	57.725	-2.725	2.725	7.425	4.954%
July	53	55.545	-2.545	2.545	6.477	4.802%
August	54	53.509	.491	.491	.241	.908%
September	50	53.902	-3.902	3.902	15.224	7.804%
October	56	50.78	5.22	5.22	27.245	9.321%
November	47	54.956	-7.956	7.956	63.299	16.928%
December	49	48.591	409	.409	.167	.834%
TOTALS	632	-6.352	45.343	294.585	85.783%	
AVERAGE	52.667	-5.77	4.122	26.78	7.798%	
Next period forecast		48.918	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	5.721		

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	55.2	-5.2	5.2	27.04	10.4%
April	48	52.08	-4.08	4.08	16.646	8.5%
May	60	49.632	10.368	10.368	107.495	17.28%
June	55	55.853	-.853	.853	.727	1.551%
July	53	55.341	-2.341	2.341	5.481	4.417%
August	54	53.936	.064	.064	.004	.118%
September	50	53.975	-3.975	3.975	15.797	7.949%
October	56	51.59	4.41	4.41	19.45	7.875%
November	47	54.236	-7.236	7.236	52.359	15.396%
December	49	49.894	-.894	.894	.8	1.825%
TOTALS	632	-7.737	41.421	249.8	78.882%	
AVERAGE	52.667	-7.03	3.766	22.709	7.171%	
Next period forecast		49.358	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	5.268		

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	54					
February	56	54	2	2	4	3.571%
March	50	55.8	-5.8	5.8	33.64	11.6%
April	48	50.58	-2.58	2.58	6.656	5.375%
May	60	48.258	11.742	11.742	137.875	19.57%
June	55	58.826	-3.826	3.826	14.637	6.956%
July	53	55.383	-2.383	2.383	5.677	4.495%
August	54	53.238	.762	.762	.58	1.411%
September	50	53.924	-3.924	3.924	15.396	7.848%
October	56	50.392	5.608	5.608	31.445	10.014%
November	47	55.439	-8.439	8.439	71.221	17.956%
December	49	47.844	1.156	1.156	1.337	2.359%
TOTALS	632	-5.684	48.219	322.464	91.155%	
AVERAGE	52.667	-5.17	4.384	29.315	8.287%	
Next period forecast		48.884	(Bias)	(MAD)	(MSE)	(MAPE)
			Std err	5.986		

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2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	27.5	2.5	2.5	6.25	8.333%
April	35	27.75	7.25	7.25	52.563	20.714%
May	28	28.475	-0.475	.475	.226	1.696%
June	30	28.428	1.573	1.573	2.473	5.242%
July	29	28.585	.415	.415	.172	1.432%
August	35	28.626	6.374	6.374	40.624	18.211%
September	33	29.264	3.736	3.736	13.96	11.322%
October	30	29.637	.363	.363	.132	1.209%
November	32	29.674	2.326	2.326	5.412	7.27%
December	29	29.906	-.906	.906	.821	3.125%
TOTALS	370	28.156	30.918	147.633	94.18%	
AVERAGE	30.833		2.56	2.811	13.421	8.562%
Next period forecast		29.816	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.05	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	28	2	2	4	6.667%
April	35	28.4	6.6	6.6	43.56	18.857%
May	28	29.72	-1.72	1.72	2.958	6.143%
June	30	29.376	.624	.624	.389	2.08%
July	29	29.501	-.501	.501	.251	1.727%
August	35	29.401	5.599	5.599	31.353	15.998%
September	33	30.521	2.479	2.479	6.148	7.514%
October	30	31.016	-1.016	1.016	1.033	3.388%
November	32	30.813	1.187	1.187	1.409	3.709%
December	29	31.051	-2.051	2.051	4.205	7.071%
TOTALS	370	18.202	28.777	120.306	88.778%	
AVERAGE	30.833		1.655	2.616	10.937	8.071%
Next period forecast		30.64	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.656	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	28.5	1.5	1.5	2.25	5%
April	35	28.95	6.05	6.05	36.602	17.286%
May	28	30.765	-2.765	2.765	7.645	9.875%
June	30	29.936	.064	.064	.004	.215%
July	29	29.955	-.955	.955	.912	3.293%
August	35	29.668	5.332	5.332	28.426	15.233%
September	33	31.268	1.732	1.732	3.0	5.249%
October	30	31.788	-1.788	1.788	3.195	5.958%
November	32	31.251	.749	.749	.561	2.34%
December	29	31.476	-2.476	2.476	6.13	8.538%
TOTALS	370	12.444	28.41	113.726	88.611%	
AVERAGE	30.833		1.131	2.583	10.339	8.056%
Next period forecast		30.733	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.555	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	29	1	1	1	3.333%
April	35	29.4	5.6	5.6	31.36	16%
May	28	31.64	-3.64	3.64	13.25	13%
June	30	30.184	-.184	.184	.034	.613%
July	29	30.11	-1.11	1.11	1.233	3.829%
August	35	29.666	5.334	5.334	28.449	15.239%
September	33	31.8	1.2	1.2	1.441	3.637%
October	30	32.28	-2.28	2.28	5.198	7.599%
November	32	31.368	.632	.632	.4	1.975%
December	29	31.621	-2.621	2.621	6.868	9.037%
TOTALS	370	8.931	28.601	114.232	89.889%	
AVERAGE	30.833		.812	2.6	10.385	8.172%
Next period forecast		30.572	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.563	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	29.5	.5	.5	.25	1.667%
April	35	29.75	5.25	5.25	27.563	15%
May	28	32.375	-4.375	4.375	19.141	15.625%
June	30	30.188	-.188	.188	.035	.625%
July	29	30.094	-1.094	1.094	1.196	3.772%
August	35	29.547	5.453	5.453	29.737	15.58%
September	33	32.273	.727	.727	.528	2.202%
October	30	32.637	-2.637	2.637	6.952	8.789%
November	32	31.318	.682	.682	.465	2.13%
December	29	31.659	-2.659	2.659	7.071	9.17%
TOTALS	370	6.659	28.563	117.937	90.184%	
AVERAGE	30.833		.605	2.597	10.722	8.199%
Next period forecast		30.33	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.62	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	30	0	0	0	0%
April	35	30	5	5	25	14.286%
May	28	33	-5	5	25	17.857%
June	30	30	0	0	0	0%
July	29	30	-1	1	1	3.448%
August	35	29.4	5.6	5.6	31.36	16%
September	33	32.76	.24	.24	.058	.727%
October	30	32.904	-2.904	2.904	8.433	9.68%
November	32	31.162	.838	.838	.703	2.62%
December	29	31.665	-2.665	2.665	7.1	9.188%
TOTALS	370	5.11	28.247	123.654	89.432%	
AVERAGE	30.833		.465	2.568	11.241	8.13%
Next period forecast		30.066	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.707	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	30.5	-.5	.5	.25	1.667%
April	35	30.15	4.85	4.85	23.523	13.857%
May	28	33.545	-5.545	5.545	30.747	19.804%
June	30	29.664	.337	.337	.113	1.122%
July	29	29.899	-.899	.899	.808	3.1%
August	35	29.27	5.73	5.73	32.836	16.372%
September	33	33.281	-.281	.281	.079	.851%
October	30	33.084	-3.084	3.084	9.513	10.281%
November	32	30.925	1.075	1.075	1.155	3.358%
December	29	31.678	-2.678	2.678	7.169	9.233%
TOTALS	370	4.005	29.978	131.193	95.27%	
AVERAGE	30.833		.364	2.725	11.927	8.661%
Next period forecast		29.803	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.818	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	31	-1	1	1	3.333%
April	35	30.2	4.8	4.8	23.04	13.714%
May	28	34.04	-6.04	6.04	36.482	21.571%
June	30	29.208	.792	.792	.627	2.64%
July	29	29.842	-.842	.842	.708	2.902%
August	35	29.168	5.832	5.832	34.009	16.662%
September	33	33.834	-.834	.834	.695	2.526%
October	30	33.167	-3.167	3.167	10.028	10.556%
November	32	30.633	1.367	1.367	1.868	4.271%
December	29	31.727	-2.727	2.727	7.435	9.402%
TOTALS	370	3.182	32.399	140.891	103.203%	
AVERAGE	30.833		.289	2.945	12.808	9.382%
Next period forecast		29.545	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.957	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	27					
February	32	27	5	5	25	15.625%
March	30	31.5	-1.5	1.5	2.25	5%
April	35	30.15	4.85	4.85	23.523	13.857%
May	28	34.515	-6.515	6.515	42.445	23.268%
June	30	28.652	1.348	1.348	1.818	4.495%
July	29	29.865	-.865	.865	.748	2.983%
August	35	29.087	5.913	5.913	34.969	16.896%
September	33	34.409	-1.409	1.409	1.984	4.269%
October	30	33.141	-3.141	3.141	9.865	10.47%
November	32	30.314	1.686	1.686	2.842	5.268%
December	29	31.831	-2.831	2.831	8.017	9.763%
TOTALS	370	2.537	35.059	153.463	111.894%	
AVERAGE	30.833		.231	3.187	13.951	10.172%
Next period forecast		29.283	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.129	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	27.6	0.4	0.4	0.16	1.429%
April	30	27.64	2.36	2.36	5.57	7.867%
May	31	27.876	3.124	3.124	9.759	10.077%
June	29	28.188	0.812	0.812	0.659	2.799%
July	30	28.27	1.73	1.73	2.994	5.768%
August	29	28.443	0.557	0.557	0.311	1.922%
September	30	28.498	1.502	1.502	2.255	5.006%
October	28	28.649	-0.649	0.649	0.421	2.316%
November	30	28.584	1.416	1.416	2.006	4.721%
December	29	28.725	0.275	0.275	0.075	0.947%
TOTALS	346		7.528	16.825	40.21	59.518%
AVERAGE	28.833		0.684	1.53	3.655	5.411%
Next period forecast		28.753	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.114	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	26.4	1.6	1.6	2.56	5.714%
April	30	27.04	2.96	2.96	8.762	9.867%
May	31	28.224	2.776	2.776	7.706	8.955%
June	29	29.334	-0.334	0.334	0.112	1.153%
July	30	29.201	0.799	0.799	0.639	2.665%
August	29	29.52	-0.52	0.52	0.271	1.794%
September	30	29.312	0.688	0.688	0.473	2.293%
October	28	29.587	-1.587	1.587	2.52	5.669%
November	30	28.952	1.048	1.048	1.097	3.492%
December	29	29.371	-0.371	0.371	0.138	1.281%
TOTALS	346		3.057	16.684	40.277	59.549%
AVERAGE	28.833		0.278	1.517	3.662	5.414%
Next period forecast		29.223	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.115	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	25.2	2.8	2.8	7.84	10%
April	30	27.16	2.84	2.84	8.066	9.467%
May	31	29.148	1.852	1.852	3.43	5.974%
June	29	30.444	-1.444	1.444	2.086	4.981%
July	30	29.433	0.567	0.567	0.321	1.889%
August	29	29.83	-0.83	0.83	0.689	2.862%
September	30	29.249	0.751	0.751	0.564	2.503%
October	28	29.775	-1.775	1.775	3.15	6.338%
November	30	28.532	1.468	1.468	2.154	4.892%
December	29	29.56	-0.56	0.56	0.313	1.93%
TOTALS	346		1.668	18.886	44.612	67.503%
AVERAGE	28.833		0.152	1.717	4.056	6.137%
Next period forecast		29.168	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.226	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	26	2	2	4	7.143%
April	30	27	3	3	9	10%
May	31	28.5	2.5	2.5	6.25	8.065%
June	29	29.75	-0.75	0.75	0.563	2.586%
July	30	29.375	0.625	0.625	0.391	2.083%
August	29	29.688	-0.688	0.688	0.473	2.371%
September	30	29.344	0.656	0.656	0.431	2.188%
October	28	29.672	-1.672	1.672	2.795	5.971%
November	30	28.836	1.164	1.164	1.355	3.88%
December	29	29.418	-0.418	0.418	0.175	1.441%
TOTALS	346		2.418	17.473	41.431	62.394%
AVERAGE	28.833		0.22	1.588	3.766	5.672%
Next period forecast		29.209	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.146	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	24.8	3.2	3.2	10.24	11.429%
April	30	27.36	2.64	2.64	6.97	8.8%
May	31	29.472	1.528	1.528	2.335	4.929%
June	29	30.694	-1.694	1.694	2.871	5.843%
July	30	29.339	0.661	0.661	0.437	2.204%
August	29	29.868	-0.868	0.868	0.753	2.992%
September	30	29.174	0.826	0.826	0.683	2.755%
October	28	29.835	-1.835	1.835	3.366	6.553%
November	30	28.367	1.633	1.633	2.667	5.444%
December	29	29.673	-0.673	0.673	0.453	2.322%
TOTALS	346		1.418	19.559	46.775	69.936%
AVERAGE	28.833		0.129	1.778	4.252	6.358%
Next period forecast		29.135	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.28	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	25.6	2.4	2.4	5.76	8.571%
April	30	27.04	2.96	2.96	8.762	9.867%
May	31	28.816	2.184	2.184	4.77	7.045%
June	29	30.126	-1.126	1.126	1.269	3.884%
July	30	29.451	0.549	0.549	0.302	1.831%
August	29	29.78	-0.78	0.78	0.609	2.69%
September	30	29.312	0.688	0.688	0.473	2.293%
October	28	29.725	-1.725	1.725	2.975	6.16%
November	30	28.69	1.31	1.31	1.716	4.367%
December	29	29.476	-0.476	0.476	0.227	1.641%
TOTALS	346		1.984	18.199	42.862	65.017%
AVERAGE	28.833		0.18	1.654	3.897	5.911%
Next period forecast		29.19	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.182	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	28					
February	24	28	-4	4	16	16.667%
March	28	24.4	3.6	3.6	12.96	12.857%
April	30	27.64	2.36	2.36	5.57	7.867%
May	31	29.764	1.236	1.236	1.528	3.987%
June	29	30.876	-1.876	1.876	3.521	6.47%
July	30	29.188	0.812	0.812	0.66	2.708%
August	29	29.919	-0.919	0.919	0.844	3.168%
September	30	29.092	0.908	0.908	0.825	3.027%
October	28	29.909	-1.909	1.909	3.645	6.819%
November	30	28.191	1.809	1.809	3.273	6.03%
December	29	29.819	-0.819	0.819	0.671	2.824%
TOTALS	346		1.202	20.249	49.496	72.424%
AVERAGE	28.833		0.109	1.841	4.5	6.584%
Next period forecast		29.082	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.345	



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$\alpha = 0,1$

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karyanya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	20.2	-1.2	1.2	1.44	6.316%
April	25	20.08	4.92	4.92	24.206	19.68%
May	23	20.572	2.428	2.428	5.895	10.557%
June	20	20.815	-.815	.815	.664	4.074%
July	26	20.733	5.267	5.267	27.738	20.256%
August	21	21.26	-.26	.26	.068	1.238%
September	17	21.234	-4.234	4.234	17.927	24.906%
October	24	20.811	3.189	3.189	10.172	13.289%
November	20	20.113	-1.13	1.13	1.276	5.648%
December	21	21.017	-.017	.017	.0	.079%
TOTALS	258		10.149		25.459	115.133%
AVERAGE	21.5		.923	2.314	8.49	10.467%
Next period forecast		21.015	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.221	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	20.8	-1.8	1.8	3.24	9.474%
April	25	20.08	4.92	4.92	24.206	19.68%
May	23	22.048	.952	.952	.906	4.139%
June	20	22.429	-2.429	2.429	5.899	12.144%
July	26	21.457	4.543	4.543	20.636	17.472%
August	21	23.274	-2.274	2.274	5.173	10.83%
September	17	22.365	-5.365	5.365	28.779	31.557%
October	24	20.219	3.781	3.781	14.298	15.755%
November	20	21.731	-1.731	1.731	2.997	8.656%
December	21	21.039	-.039	.039	.002	.185%
TOTALS	258		2.558	29.834	110.136	138.983%
AVERAGE	21.5		.233	2.712	10.012	12.635%
Next period forecast		21.023	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.498	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	21.4	-2.4	2.4	5.76	12.632%
April	25	19.72	5.28	5.28	27.878	21.12%
May	23	23.416	-.416	.416	.173	1.809%
June	20	23.125	-3.125	3.125	9.764	15.624%
July	26	20.937	5.063	5.063	25.63	19.471%
August	21	24.481	-3.481	3.481	12.119	16.577%
September	17	22.044	-5.044	5.044	25.446	29.673%
October	24	18.513	5.487	5.487	30.104	22.861%
November	20	22.354	-2.354	2.354	5.541	11.77%
December	21	20.706	.294	.294	.086	1.399%
TOTALS	258		1.303	34.943	146.501	162.027%
AVERAGE	21.5		.118	3.177	13.318	14.73%
Next period forecast		20.912	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.035	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	20.4	-1.4	1.4	1.96	7.368%
April	25	20.12	4.88	4.88	23.814	19.52%
May	23	21.096	1.904	1.904	3.625	8.278%
June	20	21.477	-1.477	1.477	2.181	7.384%
July	26	21.181	4.819	4.819	23.219	18.533%
August	21	22.145	-1.145	1.145	1.311	5.453%
September	17	21.916	-4.916	4.916	24.168	28.918%
October	24	20.933	3.067	3.067	9.407	12.78%
November	20	21.546	-1.546	1.546	2.391	7.732%
December	21	21.237	-.237	.237	.056	1.129%
TOTALS	258		5.948	27.391	96.133	126.186%
AVERAGE	21.5		.541	2.49	8.739	11.471%
Next period forecast		21.19	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.268	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	21	-2	2	4	10.526%
April	25	20	5	5	25	20%
May	23	22.5	.5	.5	.25	2.174%
June	20	22.75	-2.75	2.75	7.563	13.75%
July	26	21.375	4.625	4.625	21.391	17.788%
August	21	23.688	-2.688	2.688	7.223	12.798%
September	17	22.344	-5.344	5.344	28.556	31.434%
October	24	19.672	4.328	4.328	18.733	18.034%
November	20	21.836	-1.836	1.836	3.371	9.18%
December	21	20.918	.082	.082	.007	.391%
TOTALS	258		1.918	31.152	120.092	145.165%
AVERAGE	21.5		.174	2.832	10.917	13.197%
Next period forecast		20.959	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.653	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	21.6	-2.6	2.6	6.76	13.684%
April	25	19.52	5.48	5.48	30.03	21.92%
May	23	23.904	-.904	.904	.817	3.93%
June	20	23.181	-3.181	3.181	10.117	15.904%
July	26	20.636	5.364	5.364	28.771	20.63%
August	21	24.927	-3.927	3.927	15.423	18.701%
September	17	21.785	-4.785	4.785	22.901	28.15%
October	24	17.957	6.043	6.043	36.517	25.179%
November	20	22.791	-2.791	2.791	7.792	13.957%
December	21	20.558	.442	.442	.195	2.103%
TOTALS	258		1.14	37.517	163.323	173.25%
AVERAGE	21.5		.104	3.411	14.848	15.75%
Next period forecast		20.912	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.26	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	20.6	-1.6	1.6	2.56	8.421%
April	25	20.12	4.88	4.88	23.814	19.52%
May	23	21.584	1.416	1.416	2.005	6.157%
June	20	22.009	-2.009	2.009	4.035	10.044%
July	26	21.406	4.594	4.594	21.103	17.669%
August	21	22.784	-1.784	1.784	3.184	8.497%
September	17	22.249	-5.249	5.249	27.552	30.877%
October	24	20.674	3.326	3.326	11.06	13.857%
November	20	21.672	-1.672	1.672	2.796	8.36%
December	21	21.17	-.17	.17	.029	.811%
TOTALS	258		3.731	28.7	102.139	133.303%
AVERAGE	21.5		.339	2.609	9.285	12.118%
Next period forecast		21.119	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.369	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	21.2	-2.2	2.2	4.84	11.579%
April	25	19.88	5.12	5.12	26.214	20.48%
May	23	22.952	-.048	.048	.002	.209%
June	20	22.981	-2.981	2.981	8.885	14.904%
July	26	21.192	4.808	4.808	23.114	18.491%
August	21	24.077	-3.077	3.077	9.467	14.652%
September	17	22.231	-5.231	5.231	27.361	30.769%
October	24	19.092	4.908	4.908	24.085	20.449%
November	20	22.037	-2.037	2.037	4.149	10.185%
December	21	20.815	.185	.185	.034	.882%
TOTALS	258		1.543	32.594	132.153	151.69%
AVERAGE	21.5		.14	2.963	12.014	13.79%
Next period forecast		20.926	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.832	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	20					
February	22	20	2	2	4	9.091%
March	19	21.8	-2.8	2.8	7.84	14.737%
April	25	19.28	5.72	5.72	32.718	22.88%
May	23	24.428	-1.428	1.428	2.039	6.209%
June	20	23.143	-3.143	3.143	9.877	15.714%
July	26	20.314	5.686	5.686	32.327	21.868%
August	21	25.431	-4.431	4.431	19.638	21.102%
September	17	21.443	-4.443	4.443	19.742	26.136%
October	24	17.444	6.556	6.556	42.977	27.315%
November	20	23.344	-3.344	3.344	11.185	16.722%
December	21	20.334	.666	.666	.443	3.169%
TOTALS	258		1.037	40.217	182.786	184.944%
AVERAGE	21.5		.094	3.656	16.617	16.813%
Next period forecast		20.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.507	



$\alpha = 0,1$

2. Ditaring mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UNISUS Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	12,3	.7	.7	.49	5.385%
April	14	12,37	1,63	1,63	2,657	11,643%
May	13	12,533	,467	,467	,218	3,592%
June	15	12,58	2,42	2,42	5,858	16,135%
July	13	12,822	,178	,178	,032	1,371%
August	12	12,84	-.84	,84	,705	6,996%
September	13	12,756	,244	,244	,06	1,88%
October	12	12,78	-.78	,78	,608	6,5%
November	14	12,702	1,298	1,298	1,685	9,271%
December	15	12,832	2,168	2,168	4,701	14,454%
TOTALS	161	10,487	13,726	26,013	97,229%	
AVERAGE	13,417		,953	1,248	2,365	8,839%
Next period forecast		13,049	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,7	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	13,2	-.2	,2	,04	1,538%
April	14	13,12	,88	,88	,774	6,286%
May	13	13,472	-.472	,472	,223	3,631%
June	15	13,283	1,717	1,717	2,947	11,445%
July	13	13,97	-.97	,97	,941	7,461%
August	12	13,582	-1,582	1,582	2,503	13,183%
September	13	12,949	,051	,051	,003	,391%
October	12	12,97	-.97	,97	,94	8,079%
November	14	12,582	1,418	1,418	2,012	10,131%
December	15	13,149	1,851	1,851	3,426	12,34%
TOTALS	161	4,724	13,11	22,808	94,485%	
AVERAGE	13,417		,429	1,192	2,073	8,59%
Next period forecast		13,889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,592	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	14,1	-1,1	1,1	1,21	8,462%
April	14	13,33	-,67	,67	,449	4,786%
May	13	13,799	-,799	,799	,638	6,146%
June	15	13,24	1,76	1,76	3,099	11,735%
July	13	14,472	-1,472	1,472	2,167	11,322%
August	12	13,442	-1,442	1,442	2,078	12,013%
September	13	12,432	,568	,568	,322	4,366%
October	12	12,83	-,83	,83	,688	6,915%
November	14	12,249	1,751	1,751	3,066	12,508%
December	15	13,475	1,525	1,525	2,327	10,169%
TOTALS	161	3,632	14,916	25,044	108,421%	
AVERAGE	13,417		,33	1,356	2,277	9,856%
Next period forecast		14,542	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,668	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	13,5	-.5	,5	,25	3,846%
April	14	13,25	,75	,75	,563	5,357%
May	13	13,625	-.625	,625	,391	4,808%
June	15	13,313	1,688	1,688	2,848	11,25%
July	13	14,156	-1,156	1,156	1,337	8,894%
August	12	13,578	-1,578	1,578	2,49	13,151%
September	13	12,789	,211	,211	,044	1,623%
October	12	12,895	-.895	,895	,8	7,454%
November	14	12,447	1,553	1,553	2,411	11,091%
December	15	13,224	1,776	1,776	3,155	11,842%
TOTALS	161	4,224	13,731	23,289	99,317%	
AVERAGE	13,417		,384	1,248	2,117	9,029%
Next period forecast		14,112	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,609	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	14,4	-1,4	1,4	1,96	10,769%
April	14	13,28	-,72	,72	,518	5,143%
May	13	13,856	-,856	,856	,733	6,585%
June	15	13,171	1,829	1,829	3,345	12,192%
July	13	14,634	-1,634	1,634	2,671	12,571%
August	12	13,327	-1,327	1,327	1,761	11,057%
September	13	12,265	,735	,735	,54	5,651%
October	12	12,853	-,853	,853	,728	7,109%
November	14	12,171	1,829	1,829	3,347	13,067%
December	15	13,634	1,366	1,366	1,866	9,106%
TOTALS	161	3,409	15,549	26,467	113,25%	
AVERAGE	13,417		,31	1,414	2,406	10,295%
Next period forecast		14,727	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,715	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	13,8	-.8	,8	,64	6,154%
April	14	13,32	,68	,68	,462	4,857%
May	13	13,728	-,728	,728	,53	5,6%
June	15	13,291	1,709	1,709	2,92	11,392%
July	13	14,316	-1,316	1,316	1,733	10,127%
August	12	13,527	-1,527	1,527	2,33	12,722%
September	13	12,611	,389	,389	,152	2,995%
October	12	12,844	-,844	,844	,713	7,035%
November	14	12,338	1,662	1,662	2,763	11,874%
December	15	13,335	1,665	1,665	2,772	11,099%
TOTALS	161	3,89	14,321	24,016	103,855%	
AVERAGE	13,417		,354	1,302	2,183	9,441%
Next period forecast		14,334	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,634	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	12					
February	15	12	3	3	9	20%
March	13	14,7	-1,7	1,7	2,89	13,077%
April	14	13,17	-,83	,83	,689	5,929%
May	13	13,917	-,917	,917	,841	7,054%
June	15	13,092	1,908	1,908	3,642	12,722%
July	13	14,809	-1,809	1,809	3,273	13,917%
August	12	13,181	-1,181	1,181	1,395	9,841%
September	13	12,118	,882	,882	,778	6,784%
October	12	12,912	-,912	,912	,831	7,598%
November	14	12,091	1,909	1,909	3,644	13,634%
December	15	13,809	1,191	1,191	1,418	7,939%
TOTALS	161	3,201	16,239	28,4	118,495%	
AVERAGE	13,417		,291	1,476	2,582	10,772%
Next period forecast		14,881	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,776	



α = 0,1

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	2.3	1.7	1.7	2.89	42.5%
April	7	2.47	4.53	4.53	20.521	64.714%
May	2	2.923	-.923	.923	.852	46.15%
June	1	2.831	-1.831	1.831	3.351	183.07%
July	3	2.648	.352	.352	.124	11.746%
August	6	2.683	3.317	3.317	11.003	55.286%
September	9	3.015	5.985	5.985	35.825	66.505%
October	4	3.613	-.387	.387	.15	9.672%
November	3	3.652	-.652	.652	.425	21.727%
December	2	3.587	-1.587	1.587	2.517	79.331%
TOTALS	48		14.28	24.264	86.659	640.701%
AVERAGE	4		1.298	2.206	7.878	58.246%
Next period forecast		3.428	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.103	

α = 0,4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	3.2	.8	.8	.64	20%
April	7	3.52	3.48	3.48	12.11	49.714%
May	2	4.912	-2.912	2.912	8.48	145.6%
June	1	3.747	-2.747	2.747	7.547	274.72%
July	3	2.648	.352	.352	.124	11.723%
August	6	2.789	3.211	3.211	10.311	53.517%
September	9	4.073	4.927	4.927	24.271	54.74%
October	4	6.044	-2.044	2.044	4.178	51.101%
November	3	5.226	-2.226	2.226	4.957	74.214%
December	2	4.336	-2.336	2.336	5.456	116.793%
TOTALS	48		3.504	28.035	87.074	912.122%
AVERAGE	4		.319	2.549	7.916	82.92%
Next period forecast		3.402	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.11	

α = 0,7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	4.1	-.1	.1	.01	2.5%
April	7	4.03	2.97	2.97	8.821	42.429%
May	2	6.109	-4.109	4.109	16.884	205.45%
June	1	3.233	-2.233	2.233	4.985	223.27%
July	3	1.67	1.33	1.33	1.769	44.34%
August	6	2.601	3.399	3.399	11.554	56.651%
September	9	4.98	4.02	4.02	16.158	44.664%
October	4	7.794	-3.794	3.794	14.395	94.852%
November	3	5.138	-2.138	2.138	4.572	71.274%
December	2	3.641	-1.641	1.641	2.694	82.073%
TOTALS	48		.703	28.734	90.842	927.502%
AVERAGE	4		.64	2.612	8.258	84.318%
Next period forecast		2.492	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.177	

α = 0,5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	3.5	.5	.5	.25	12.5%
April	7	3.75	3.25	3.25	10.563	46.429%
May	2	5.375	-3.375	3.375	11.391	168.75%
June	1	3.688	-2.688	2.688	7.223	268.75%
July	3	2.344	.656	.656	.431	21.875%
August	6	2.672	3.328	3.328	11.076	55.469%
September	9	4.336	4.664	4.664	21.753	51.823%
October	4	6.668	-2.668	2.668	7.118	66.699%
November	3	5.334	-2.334	2.334	5.447	77.799%
December	2	4.167	-2.167	2.167	4.696	108.35%
TOTALS	48		2.167	28.63	88.948	938.444%
AVERAGE	4		.197	2.603	8.086	85.313%
Next period forecast		3.083	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.144	

α = 0,8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	4.4	-.4	.4	.16	10%
April	7	4.08	2.92	2.92	8.526	41.714%
May	2	6.416	-4.416	4.416	19.501	220.8%
June	1	2.883	-1.883	1.883	3.546	188.32%
July	3	1.377	1.623	1.623	2.635	54.112%
August	6	2.675	3.325	3.325	11.053	55.411%
September	9	5.335	3.665	3.665	13.432	40.721%
October	4	8.267	-4.267	4.267	18.207	106.675%
November	3	4.853	-1.853	1.853	3.435	61.78%
December	2	3.371	-1.371	1.371	1.879	68.534%
TOTALS	48		.343	28.723	91.376	908.069%
AVERAGE	4		.031	2.611	8.307	82.552%
Next period forecast		2.274	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.186	

α = 0,6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	3.8	.2	.2	.04	5%
April	7	3.92	3.08	3.08	9.486	44%
May	2	5.768	-3.768	3.768	14.198	188.4%
June	1	3.507	-2.507	2.507	6.286	250.72%
July	3	2.003	.997	.997	.994	33.237%
August	6	2.601	3.399	3.399	11.552	56.647%
September	9	4.64	4.36	4.36	19.006	48.439%
October	4	7.256	-3.256	3.256	10.603	81.405%
November	3	5.302	-2.302	2.302	5.301	76.749%
December	2	3.921	-1.921	1.921	3.69	96.049%
TOTALS	48		1.281	28.79	90.157	940.647%
AVERAGE	4		.116	2.617	8.196	85.513%
Next period forecast		2.768	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.165	

α = 0,9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	5	2	3	3	9	60%
March	4	4.7	-.7	.7	.49	17.5%
April	7	4.07	2.93	2.93	8.585	41.857%
May	2	6.707	-4.707	4.707	22.156	235.35%
June	1	2.471	-1.471	1.471	2.163	147.07%
July	3	1.147	1.853	1.853	3.433	61.764%
August	6	2.815	3.185	3.185	10.146	53.088%
September	9	5.681	3.319	3.319	11.013	36.873%
October	4	8.668	-4.668	4.668	21.792	116.704%
November	3	4.467	-1.467	1.467	2.152	48.894%
December	2	3.147	-1.147	1.147	1.315	57.334%
TOTALS	48		.127	28.446	92.244	876.434%
AVERAGE	4		.012	2.586	8.386	79.676%
Next period forecast		2.115	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.201	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suka Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	2.2	.8	.8	.64	26.667%
April	4	2.28	1.72	1.72	2.958	43%
May	3	2.452	.548	.548	.3	18.267%
June	6	2.507	3.493	3.493	12.202	58.22%
July	5	2.856	2.144	2.144	4.596	42.878%
August	3	3.071	-.071	.071	.005	2.35%
September	4	3.063	.937	.937	.877	23.414%
October	6	3.157	2.843	2.843	8.082	47.381%
November	7	3.441	3.559	3.559	12.664	50.837%
December	3	3.797	-.797	.797	.636	26.575%
TOTALS	50		17.175	18.911	46.961	389.589%
AVERAGE	4.167		1.561	1.719	4.269	35.417%
Next period forecast		3.718	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.284	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	2.8	.2	.2	.04	6.667%
April	4	2.88	1.12	1.12	1.254	28%
May	3	3.328	-.328	.328	.108	10.933%
June	6	3.197	2.803	2.803	7.858	46.72%
July	5	4.318	-.82	.82	.465	13.638%
August	3	4.591	-.1591	1.591	2.531	53.028%
September	4	3.955	.045	.045	.002	1.137%
October	6	3.973	2.027	2.027	4.11	33.788%
November	7	4.784	2.216	2.216	4.912	31.663%
December	3	5.67	-.267	.267	7.13	89.006%
TOTALS	50		6.505	15.683	32.41	364.581%
AVERAGE	4.167		.591	1.426	2.946	33.144%
Next period forecast		4.602	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.898	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.4	-.4	.4	.16	13.333%
April	4	3.12	.88	.88	.774	22%
May	3	3.736	-.736	.736	.542	24.533%
June	6	3.221	2.779	2.779	7.724	46.32%
July	5	5.166	-.166	.166	.028	3.325%
August	3	5.05	-.205	.205	4.202	68.329%
September	4	3.615	.385	.385	.148	9.626%
October	6	3.884	2.116	2.116	4.475	35.259%
November	7	5.365	1.635	1.635	2.672	23.352%
December	3	6.51	-.351	.351	12.317	116.987%
TOTALS	50		2.933	16.656	37.043	413.064%
AVERAGE	4.167		.267	1.514	3.368	37.551%
Next period forecast		4.053	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.029	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3	0	0	0	0%
April	4	3	1	1	1	25%
May	3	3.5	-.5	.5	.25	16.667%
June	6	3.25	2.75	2.75	7.563	45.833%
July	5	4.625	-.375	.375	.141	7.5%
August	3	4.813	-.1813	1.813	3.285	60.417%
September	4	3.906	.094	.094	.009	2.344%
October	6	3.953	2.047	2.047	4.19	34.115%
November	7	4.977	2.023	2.023	4.094	28.906%
December	3	5.988	-.288	.288	8.93	99.609%
TOTALS	50		4.988	15.59	33.461	370.391%
AVERAGE	4.167		.453	1.417	3.042	33.672%
Next period forecast		4.404	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.928	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.6	-.6	.6	.36	20%
April	4	3.12	.88	.88	.774	22%
May	3	3.824	-.824	.824	.679	27.467%
June	6	3.165	2.835	2.835	8.038	47.253%
July	5	5.433	-.433	.433	.187	8.659%
August	3	5.087	-.2087	2.087	4.354	69.553%
September	4	3.417	.583	.583	.34	14.567%
October	6	3.883	2.117	2.117	4.48	35.276%
November	7	5.577	1.423	1.423	2.026	20.333%
December	3	6.715	-.3715	3.715	13.804	123.845%
TOTALS	50		2.179	17.497	39.042	438.953%
AVERAGE	4.167		.198	1.591	3.549	39.905%
Next period forecast		3.743	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.083	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	2.6	.4	.4	.16	13.333%
April	4	2.72	1.28	1.28	1.638	32%
May	3	3.104	-.104	.104	.011	3.467%
June	6	3.073	2.927	2.927	8.568	48.787%
July	5	3.951	1.049	1.049	1.1	20.981%
August	3	4.266	-.1266	1.266	1.602	42.189%
September	4	3.886	.114	.114	.013	2.851%
October	6	3.92	2.08	2.08	4.326	34.664%
November	7	4.544	2.456	2.456	6.031	35.084%
December	3	5.281	-.281	.281	5.202	76.03%
TOTALS	50		8.655	15.957	32.653	359.385%
AVERAGE	4.167		.787	1.451	2.968	32.671%
Next period forecast		4.597	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.905	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.2	-.2	.2	.04	6.667%
April	4	3.08	.92	.92	.846	23%
May	3	3.632	-.632	.632	.399	21.067%
June	6	3.253	2.747	2.747	7.547	45.787%
July	5	4.901	.099	.099	.01	1.978%
August	3	4.96	-.196	.196	3.843	65.348%
September	4	3.784	.216	.216	.047	5.396%
October	6	3.914	2.086	2.086	4.353	34.772%
November	7	5.165	1.835	1.835	3.366	26.208%
December	3	6.266	-.3266	3.266	10.668	108.873%
TOTALS	50		3.844	15.961	35.119	389.094%
AVERAGE	4.167		.349	1.451	3.193	35.372%
Next period forecast		4.306	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.975	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	3	3.8	-.8	.8	.64	26.667%
April	4	3.08	.92	.92	.846	23%
May	3	3.908	-.908	.908	.824	30.267%
June	6	3.091	2.909	2.909	8.463	48.487%
July	5	5.709	-.709	.709	.503	14.182%
August	3	5.071	-.2071	2.071	4.289	69.03%
September	4	3.207	.793	.793	.629	19.823%
October	6	3.921	2.079	2.079	4.323	34.655%
November	7	5.792	1.208	1.208	1.459	17.256%
December	3	6.879	-.379	3.879	15.048	129.307%
TOTALS	50		1.542	18.277	41.025	462.673%
AVERAGE	4.167		.14	1.662	3.73	42.061%
Next period forecast		3.388	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.135	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.9	2.1	2.1	4.41	26.25%
April	5	6.11	-1.11	1.11	1.232	22.2%
May	8	6	2.001	2.001	4.004	25.013%
June	10	6.199	3.801	3.801	14.447	38.009%
July	4	6.579	-2.579	2.579	6.652	64.48%
August	6	6.321	-.321	.321	.103	5.355%
September	7	6.289	.711	.711	.505	10.155%
October	8	6.36	1.64	1.64	2.689	20.497%
November	9	6.524	2.476	2.476	6.13	27.509%
December	6	6.772	-.772	.772	.596	12.863%
TOTALS	82	6.946	18.511	41.768	272.33%	
AVERAGE	6.833		.631	1.683	3.797	24.757%
Next period forecast		6.695	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.154	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.6	2.4	2.4	5.76	30%
April	5	6.56	-1.56	1.56	2.434	31.2%
May	8	5.936	2.064	2.064	4.26	25.8%
June	10	6.762	3.238	3.238	10.487	32.384%
July	4	8.057	-4.057	4.057	16.459	101.424%
August	6	6.434	-.434	.434	.189	7.236%
September	7	6.261	.739	.739	.547	10.564%
October	8	6.556	1.444	1.444	2.084	18.046%
November	9	7.134	1.866	1.866	3.483	20.736%
December	6	7.88	-1.88	1.88	3.535	31.338%
TOTALS	82	2.82	20.683	50.238	328.728%	
AVERAGE	6.833		.256	1.88	4.567	29.884%
Next period forecast		7.128	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.363	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.3	2.7	2.7	7.29	33.75%
April	5	7.19	-2.19	2.19	4.796	43.8%
May	8	5.657	2.343	2.343	5.49	29.288%
June	10	7.297	2.703	2.703	7.306	27.029%
July	4	9.189	-5.189	5.189	26.927	129.728%
August	6	5.557	.443	.443	.196	7.388%
September	7	5.867	1.133	1.133	1.284	16.185%
October	8	6.66	1.34	1.34	1.795	16.749%
November	9	7.598	1.402	1.402	1.966	15.577%
December	6	8.579	-2.579	2.579	6.653	42.99%
TOTALS	82	1.105	23.023	64.703	382.484%	
AVERAGE	6.833		.1	2.093	5.882	34.771%
Next period forecast		6.774	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.681	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.5	2.5	2.5	6.25	31.25%
April	5	6.75	-1.75	1.75	3.063	35%
May	8	5.875	2.125	2.125	4.516	26.563%
June	10	6.938	3.063	3.063	9.379	30.625%
July	4	8.469	-4.469	4.469	19.97	111.719%
August	6	6.234	-.234	.234	.055	3.906%
September	7	6.117	.883	.883	.779	12.612%
October	8	6.559	1.441	1.441	2.078	18.018%
November	9	7.279	1.721	1.721	2.961	19.119%
December	6	8.14	-2.14	2.14	4.578	35.661%
TOTALS	82	2.14	21.325	54.628	344.471%	
AVERAGE	6.833		.195	1.939	4.966	31.316%
Next period forecast		7.07	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.464	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.2	2.8	2.8	7.84	35%
April	5	7.44	-2.44	2.44	5.954	48.8%
May	8	5.488	2.512	2.512	6.31	31.4%
June	10	7.498	2.502	2.502	6.262	25.024%
July	4	9.5	-5.5	5.5	30.245	137.488%
August	6	5.1	.9	.9	.81	15.002%
September	7	5.82	1.18	1.18	1.392	16.857%
October	8	6.764	1.236	1.236	1.528	15.45%
November	9	7.753	1.247	1.247	1.556	13.858%
December	6	8.751	-2.751	2.751	7.566	45.843%
TOTALS	82	.688	24.068	70.462	404.722%	
AVERAGE	6.833		.063	2.188	6.406	36.793%
Next period forecast		6.55	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.798	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.4	2.6	2.6	6.76	32.5%
April	5	6.96	-1.96	1.96	3.842	39.2%
May	8	5.784	2.216	2.216	4.911	27.7%
June	10	7.114	2.886	2.886	8.331	28.864%
July	4	8.845	-4.845	4.845	23.478	121.136%
August	6	5.938	.062	.062	.004	1.03%
September	7	5.975	1.025	1.025	1.05	14.639%
October	8	6.59	1.41	1.41	1.988	17.624%
November	9	7.436	1.564	1.564	2.446	17.377%
December	6	8.374	-2.374	2.374	5.638	39.574%
TOTALS	82	1.583	21.943	59.447	359.644%	
AVERAGE	6.833		.144	1.995	5.404	32.695%
Next period forecast		6.95	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.57	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	8	5.1	2.9	2.9	8.41	36.25%
April	5	7.71	-2.71	2.71	7.344	54.2%
May	8	5.271	2.729	2.729	7.447	34.113%
June	10	7.727	2.273	2.273	5.166	22.729%
July	4	9.773	-5.773	5.773	33.324	144.318%
August	6	4.577	1.423	1.423	2.024	23.712%
September	7	5.858	1.142	1.142	1.305	16.318%
October	8	6.886	1.114	1.114	1.242	13.928%
November	9	7.889	1.111	1.111	1.235	12.349%
December	6	8.889	-2.889	2.889	8.346	48.148%
TOTALS	82	.321	25.064	76.843	426.064%	
AVERAGE	6.833		.029	2.279	6.986	38.733%
Next period forecast		6.289	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.922	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	43.6	1.4	1.4	1.96	3.111%
April	42	43.74	-1.74	1.74	3.028	4.143%
May	44	43.566	.434	.434	.188	.986%
June	50	43.609	6.391	6.391	40.84	12.781%
July	48	44.248	3.752	3.752	14.074	7.816%
August	39	44.624	-5.624	5.624	31.625	14.42%
September	40	44.061	-4.061	4.061	16.494	10.153%
October	43	43.655	-.655	.655	.429	1.524%
November	46	43.59	2.41	2.41	5.81	5.24%
December	44	43.831	.169	.169	.029	.385%
TOTALS	525		-1.524	30.636	130.476	70.558%
AVERAGE	43.75		-1.39	2.785	11.861	6.414%
Next period forecast		43.848	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.808	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	42.4	2.6	2.6	6.76	5.778%
April	42	43.44	-1.44	1.44	2.074	3.429%
May	44	42.864	1.136	1.136	1.29	2.582%
June	50	43.318	6.682	6.682	44.644	13.363%
July	48	45.991	2.009	2.009	4.036	4.185%
August	39	46.795	-7.795	7.795	60.756	19.986%
September	40	43.677	-3.677	3.677	13.519	9.192%
October	43	42.206	.794	.794	.63	1.846%
November	46	42.524	3.476	3.476	12.085	7.557%
December	44	43.914	.086	.086	.007	.195%
TOTALS	525		-1.29	33.694	161.801	78.114%
AVERAGE	43.75		-.012	3.063	14.709	7.101%
Next period forecast		43.949	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.24	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	41.2	3.8	3.8	14.44	8.444%
April	42	43.86	-1.86	1.86	3.46	4.429%
May	44	42.558	1.442	1.442	2.079	3.277%
June	50	43.567	6.433	6.433	41.378	12.865%
July	48	48.07	-.07	.07	.005	.146%
August	39	48.021	-9.021	9.021	81.38	23.131%
September	40	41.706	-1.706	1.706	2.912	4.266%
October	43	40.512	2.488	2.488	6.191	5.786%
November	46	42.254	3.746	3.746	14.036	8.144%
December	44	44.876	-.876	.876	.767	1.991%
TOTALS	525		.375	35.443	182.647	82.48%
AVERAGE	43.75		.034	3.222	16.604	7.498%
Next period forecast		44.263	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.505	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	42	3	3	9	6.667%
April	42	43.5	-1.5	1.5	2.25	3.571%
May	44	42.75	1.25	1.25	1.563	2.841%
June	50	43.375	6.625	6.625	43.891	13.25%
July	48	46.688	1.313	1.313	1.723	2.734%
August	39	47.344	-8.344	8.344	69.618	21.394%
September	40	43.172	-3.172	3.172	10.061	7.93%
October	43	41.586	1.414	1.414	2	3.289%
November	46	42.293	3.707	3.707	13.742	8.059%
December	44	44.146	-.146	.146	.021	.333%
TOTALS	525		.146	34.471	169.868	80.068%
AVERAGE	43.75		.013	3.134	15.443	7.279%
Next period forecast		44.073	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.344	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	40.8	4.2	4.2	17.64	9.333%
April	42	44.16	-2.16	2.16	4.666	5.143%
May	44	42.432	1.568	1.568	2.459	3.564%
June	50	43.686	6.314	6.314	39.862	12.627%
July	48	48.737	-.737	.737	.544	1.536%
August	39	48.147	-9.147	9.147	83.676	23.455%
September	40	40.829	-.829	.829	.688	2.074%
October	43	40.166	2.834	2.834	8.032	6.591%
November	46	42.433	3.567	3.567	12.722	7.754%
December	44	45.287	-1.287	1.287	1.655	2.924%
TOTALS	525		.322	36.643	187.943	85.001%
AVERAGE	43.75		.029	3.331	17.086	7.727%
Next period forecast		44.257	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.57	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	41.6	3.4	3.4	11.56	7.556%
April	42	43.64	-1.64	1.64	2.69	3.905%
May	44	42.656	1.344	1.344	1.806	3.055%
June	50	43.462	6.538	6.538	42.74	13.075%
July	48	47.385	615	615	.378	1.281%
August	39	47.754	-8.754	8.754	76.632	22.446%
September	40	42.502	-2.502	2.502	6.258	6.254%
October	43	41.001	2	2	3.997	4.65%
November	46	42.2	3.8	3.8	14.438	8.26%
December	44	44.48	-.48	.48	.23	1.091%
TOTALS	525		.32	35.071	176.731	81.573%
AVERAGE	43.75		.029	3.188	16.066	7.416%
Next period forecast		44.192	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.431	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	44					
February	40	44	-4	4	16	10%
March	45	40.4	4.6	4.6	21.16	10.222%
April	42	44.54	-2.54	2.54	6.452	6.048%
May	44	42.254	1.746	1.746	3.049	3.968%
June	50	43.825	6.175	6.175	38.126	12.349%
July	48	49.383	-1.383	1.383	1.911	2.88%
August	39	48.138	-9.138	9.138	83.508	23.431%
September	40	39.914	.086	.086	.007	.215%
October	43	39.991	3.009	3.009	9.052	6.997%
November	46	42.699	3.301	3.301	10.896	7.176%
December	44	45.67	-1.67	1.67	2.789	3.795%
TOTALS	525		.186	37.647	192.948	87.082%
AVERAGE	43.75		.017	3.422	17.541	7.917%
Next period forecast		44.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.63	

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,4$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,7$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,5$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,8$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,9$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,6$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

$\alpha = 0,9$

Table with columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows: January to December, TOTALS, AVERAGE, Next period forecast.

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 3.949 (Bias), (MAD), (MSE), (MAPE), Std err 3.261.

$\alpha = 0,4$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 7.055 (Bias), (MAD), (MSE), (MAPE), Std err 2.695.

$\alpha = 0,7$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 8.852 (Bias), (MAD), (MSE), (MAPE), Std err 2.478.

$\alpha = 0,5$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 5.275 (Bias), (MAD), (MSE), (MAPE), Std err 2.968.

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 7.736 (Bias), (MAD), (MSE), (MAPE), Std err 2.618.

$\alpha = 0,8$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 9.298 (Bias), (MAD), (MSE), (MAPE), Std err 2.405.

$\alpha = 0,9$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 6.259 (Bias), (MAD), (MSE), (MAPE), Std err 2.8.

$\alpha = 0,6$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 8.332 (Bias), (MAD), (MSE), (MAPE), Std err 2.548.

$\alpha = 0,9$

Table with 7 columns: Demand(y), Forecast, Error, |Error|, Error^2, |Pct Error|. Rows include months from January to December, TOTALS, AVERAGE, and Next period forecast. Next period forecast values: 9.677 (Bias), (MAD), (MSE), (MAPE), Std err 2.332.

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	6.2	-1.2	1.2	1.44	24%
April	6	6.08	-.08	.08	.006	1.333%
May	4	6.072	-2.072	2.072	4.293	51.8%
June	5	5.865	-.865	.865	.748	17.296%
July	7	5.778	1.222	1.222	1.493	17.453%
August	3	5.9	-2.9	2.9	8.413	96.683%
September	10	5.61	4.39	4.39	19.268	43.896%
October	9	6.049	2.951	2.951	8.706	32.785%
November	7	6.344	.656	.656	.43	9.365%
December	8	6.41	1.59	1.59	2.528	19.875%
TOTALS	78		5.69	19.925	51.325	339.485%
AVERAGE	6.5		.517	1.811	4.666	30.862%
Next period forecast		6.569	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.388	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	6.8	-1.8	1.8	3.24	36%
April	6	6.08	-.08	.08	.006	1.333%
May	4	6.048	-2.048	2.048	4.194	51.2%
June	5	5.229	-.229	.229	.052	4.576%
July	7	5.137	1.863	1.863	3.47	26.61%
August	3	5.882	-2.882	2.882	8.308	96.079%
September	10	4.729	5.271	5.271	27.779	52.706%
October	9	6.838	2.162	2.162	4.676	24.026%
November	7	7.703	-.703	.703	.494	10.037%
December	8	7.422	.578	.578	.335	7.231%
TOTALS	78		4.132	19.616	56.554	334.798%
AVERAGE	6.5		.376	1.783	5.141	30.436%
Next period forecast		7.653	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.507	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	7.4	-2.4	2.4	5.76	48%
April	6	5.72	.28	.28	.078	4.667%
May	4	5.916	-1.916	1.916	3.671	47.9%
June	5	4.575	.425	.425	.181	8.504%
July	7	4.872	2.128	2.128	4.527	30.394%
August	3	6.362	-3.362	3.362	11.301	112.058%
September	10	4.009	5.991	5.991	35.898	59.915%
October	9	8.203	.797	.797	.636	8.86%
November	7	8.761	-1.761	1.761	3.1	25.154%
December	8	7.528	.472	.472	.223	5.897%
TOTALS	78		2.655	21.532	69.575	376.348%
AVERAGE	6.5		.241	1.957	6.307	34.213%
Next period forecast		7.858	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.776	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	7	-2	2	4	40%
April	6	6	0	0	0	0%
May	4	6	-2	2	4	50%
June	5	5	0	0	0	0%
July	7	5	2	2	4	28.571%
August	3	6	-3	3	9	100%
September	10	4.5	5.5	5.5	30.25	55%
October	9	7.25	1.75	1.75	3.063	19.444%
November	7	8.125	-1.125	1.125	1.266	16.071%
December	8	7.563	.438	.438	.191	5.469%
TOTALS	78		3.563	19.813	59.77	339.556%
AVERAGE	6.5		.324	1.801	5.434	30.869%
Next period forecast		7.781	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.577	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	7.6	-2.6	2.6	6.76	52%
April	6	5.52	.48	.48	.23	8%
May	4	5.904	-1.904	1.904	3.625	47.6%
June	5	4.381	.619	.619	.383	12.384%
July	7	4.876	2.124	2.124	4.511	30.341%
August	3	6.575	-3.575	3.575	12.782	119.174%
September	10	3.715	6.285	6.285	39.501	62.85%
October	9	8.743	.257	.257	.066	2.855%
November	7	8.949	-1.949	1.949	3.797	27.837%
December	8	7.39	.61	.61	.372	7.628%
TOTALS	78		2.347	22.403	76.028	395.67%
AVERAGE	6.5		.213	2.037	6.912	35.97%
Next period forecast		7.878	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.906	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	7.2	-2.2	2.2	4.84	44%
April	6	5.88	.12	.12	.014	2%
May	4	5.952	-1.952	1.952	3.81	48.8%
June	5	4.781	.219	.219	.048	4.384%
July	7	4.912	2.088	2.088	4.358	29.824%
August	3	6.165	-3.165	3.165	10.017	105.498%
September	10	4.266	5.734	5.734	32.879	57.34%
October	9	7.706	1.294	1.294	1.673	14.373%
November	7	8.483	-1.483	1.483	2.198	21.179%
December	8	7.593	.407	.407	.166	5.087%
TOTALS	78		3.062	20.661	64.004	357.486%
AVERAGE	6.5		.278	1.878	5.819	32.499%
Next period forecast		7.837	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.667	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	8	6	2	2	4	25%
March	5	7.8	-2.8	2.8	7.84	56%
April	6	5.28	.72	.72	.518	12%
May	4	5.928	-1.928	1.928	3.717	48.2%
June	5	4.193	.807	.807	.652	16.144%
July	7	4.919	2.081	2.081	4.329	29.725%
August	3	6.792	-3.792	3.792	14.379	126.398%
September	10	3.379	6.621	6.621	43.835	66.208%
October	9	9.338	-.338	.338	.114	3.755%
November	7	9.034	-2.034	2.034	4.136	29.054%
December	8	7.203	.797	.797	.635	9.958%
TOTALS	78		2.134	23.917	84.155	422.441%
AVERAGE	6.5		.194	2.174	7.65	38.404%
Next period forecast		7.92	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.058	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	25.8	-.8	.8	.64	3.2%
April	20	25.72	-5.72	5.72	32.718	28.6%
May	26	25.148	.852	.852	.726	3.277%
June	27	25.233	1.767	1.767	3.122	6.544%
July	26	25.41	-.59	.59	.348	2.27%
August	25	25.469	-.469	.469	.22	1.876%
September	20	25.422	-5.422	5.422	29.398	27.11%
October	23	24.88	-1.88	1.88	3.534	8.173%
November	24	24.692	-.692	.692	.479	2.883%
December	26	24.623	1.377	1.377	1.897	5.298%
TOTALS	292		-12.396	21.569	77.081	97.562%
AVERAGE	24.333		-1.127	1.961	7.007	8.869%
Next period forecast		24.76	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.927	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	25.2	-.2	.2	.04	.8%
April	20	25.12	-5.12	5.12	26.214	25.6%
May	26	23.072	2.928	2.928	8.573	11.262%
June	27	24.243	2.757	2.757	7.6	10.21%
July	26	25.346	.654	.654	.428	2.516%
August	25	25.608	-.608	.608	.369	2.43%
September	20	25.365	-5.365	5.365	28.778	26.823%
October	23	23.219	-.219	.219	.048	.951%
November	24	23.131	.869	.869	.755	3.62%
December	26	23.479	2.521	2.521	6.357	9.697%
TOTALS	292		-3.782	23.24	83.162	102.242%
AVERAGE	24.333		-.344	2.113	7.56	9.295%
Next period forecast		24.487	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.04	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	24.6	.4	.4	.16	1.6%
April	20	24.88	-4.88	4.88	23.814	24.4%
May	26	21.464	4.536	4.536	20.575	17.446%
June	27	24.639	2.361	2.361	5.573	8.744%
July	26	26.292	-.292	.292	.085	1.122%
August	25	26.088	-1.088	1.088	1.183	4.35%
September	20	25.326	-5.326	5.326	28.369	26.631%
October	23	21.598	1.402	1.402	1.966	6.096%
November	24	22.579	1.421	1.421	2.018	5.919%
December	26	23.574	2.426	2.426	5.886	9.332%
TOTALS	292		-1.04	26.131	93.631	113.974%
AVERAGE	24.333		-.095	2.376	8.512	10.361%
Next period forecast		25.272	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.225	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	25	0	0	0	0%
April	20	25	-5	5	25	25%
May	26	22.5	3.5	3.5	12.25	13.462%
June	27	24.25	2.75	2.75	7.563	10.185%
July	26	25.625	.375	.375	.141	1.442%
August	25	25.813	-.813	.813	.66	3.25%
September	20	25.406	-5.406	5.406	29.228	27.031%
October	23	22.703	.297	.297	.088	1.291%
November	24	22.852	1.148	1.148	1.319	4.785%
December	26	23.426	2.574	2.574	6.627	9.901%
TOTALS	292		-2.574	23.863	86.874	104.68%
AVERAGE	24.333		-.234	2.169	7.898	9.516%
Next period forecast		24.713	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.107	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	24.4	.6	.6	.36	2.4%
April	20	24.88	-4.88	4.88	23.814	24.4%
May	26	20.976	5.024	5.024	25.241	19.323%
June	27	24.995	2.005	2.005	4.019	7.425%
July	26	26.599	-.599	.599	.359	2.304%
August	25	26.12	-1.12	1.12	1.254	4.479%
September	20	25.224	-5.224	5.224	27.29	26.12%
October	23	21.045	1.955	1.955	3.823	8.501%
November	24	22.609	1.391	1.391	1.935	5.796%
December	26	23.722	2.278	2.278	5.19	8.762%
TOTALS	292		-.57	27.076	97.285	117.844%
AVERAGE	24.333		-.052	2.461	8.844	10.713%
Next period forecast		25.544	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.288	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	25.4	-.4	.4	.16	1.6%
April	20	25.28	-5.28	5.28	27.878	26.4%
May	26	23.696	2.304	2.304	5.308	8.862%
June	27	24.387	2.613	2.613	6.827	9.677%
July	26	25.171	.829	.829	.687	3.188%
August	25	25.42	-.42	.42	.176	1.679%
September	20	25.294	-5.294	5.294	28.024	26.469%
October	23	23.706	-.706	.706	.498	3.068%
November	24	23.494	.506	.506	.256	2.108%
December	26	23.646	2.354	2.354	5.542	9.055%
TOTALS	292		-5.493	22.705	79.358	100.44%
AVERAGE	24.333		-4.99	2.064	7.214	9.131%
Next period forecast		24.352	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.969	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	24.8	.2	.2	.04	.8%
April	20	24.92	-4.92	4.92	24.206	24.6%
May	26	21.968	4.032	4.032	16.257	15.508%
June	27	24.387	2.613	2.613	6.827	9.677%
July	26	25.955	.045	.045	.002	.174%
August	25	25.982	-.982	.982	.964	3.928%
September	20	25.393	-5.393	5.393	29.082	26.964%
October	23	22.157	.843	.843	.71	3.665%
November	24	22.663	1.337	1.337	1.788	5.571%
December	26	23.465	2.535	2.535	6.426	9.749%
TOTALS	292		-1.69	24.9	90.302	108.969%
AVERAGE	24.333		-.154	2.264	8.209	9.906%
Next period forecast		24.986	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.168	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	26					
February	24	26	-2	2	4	8.333%
March	25	24.2	.8	.8	.64	3.2%
April	20	24.92	-4.92	4.92	24.206	24.6%
May	26	20.492	5.508	5.508	30.338	21.185%
June	27	25.449	1.551	1.551	2.405	5.744%
July	26	26.845	-.845	.845	.714	3.25%
August	25	26.084	-1.084	1.084	1.176	4.338%
September	20	25.108	-5.108	5.108	26.096	25.542%
October	23	20.511	2.489	2.489	6.196	10.822%
November	24	22.751	1.249	1.249	1.56	5.204%
December	26	23.875	2.125	2.125	4.515	8.173%
TOTALS	292		-2.36	27.68	101.847	120.39%
AVERAGE	24.333		-.021	2.516	9.259	10.945%
Next period forecast		25.788	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.364	

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.9	1.1	1.1	1.21	15.714%
April	6	6.01	-.01	.01	.0	-.167%
May	10	6.009	3.991	3.991	15.928	39.91%
June	8	6.408	1.592	1.592	2.534	19.899%
July	4	6.567	-2.567	2.567	6.591	64.182%
August	6	6.311	-.311	.311	.096	5.176%
September	3	6.28	-3.28	3.28	10.755	109.317%
October	5	5.952	-.952	.952	.905	19.031%
November	4	5.856	-1.856	1.856	3.446	46.41%
December	6	5.671	.329	.329	.108	5.487%
TOTALS	70		-2.963	16.987	42.575	345.293%
AVERAGE	5.833		-.269	1.544	3.87	31.39%
Next period forecast		5.704	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.175

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.6	1.4	1.4	1.96	20%
April	6	6.16	-.16	.16	.026	2.667%
May	10	6.096	3.904	3.904	15.241	39.04%
June	8	7.658	-.342	.342	.117	4.28%
July	4	7.795	-3.795	3.795	14.399	94.864%
August	6	6.277	-.277	.277	.077	4.612%
September	3	6.166	-3.166	3.166	10.024	105.535%
October	5	4.9	-.1	.1	.01	2.008%
November	4	4.94	-.94	.94	.883	23.494%
December	6	4.564	1.436	1.436	2.062	23.936%
TOTALS	70		-2.154	16.52	45.799	340.435%
AVERAGE	5.833		-.196	1.502	4.164	30.949%
Next period forecast		5.138	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.256

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.3	1.7	1.7	2.89	24.286%
April	6	6.49	-.49	.49	.24	8.167%
May	10	6.147	3.853	3.853	14.846	38.53%
June	8	8.844	-.844	.844	.713	10.551%
July	4	8.253	-4.253	4.253	18.09	106.331%
August	6	5.276	.724	.724	.524	12.067%
September	3	5.783	-2.783	2.783	7.744	92.76%
October	5	3.835	1.165	1.165	1.358	23.303%
November	4	4.65	-.65	.65	.423	16.261%
December	6	4.195	1.805	1.805	3.258	30.081%
TOTALS	70		-.774	19.268	51.085	382.337%
AVERAGE	5.833		-.07	1.752	4.644	34.758%
Next period forecast		5.459	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.382

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.8	1.2	1.2	1.44	17.143%
April	6	6.04	-.04	.04	.002	.667%
May	10	6.032	3.968	3.968	15.745	39.68%
June	8	6.826	1.174	1.174	1.379	14.68%
July	4	7.06	-3.06	3.06	9.367	76.512%
August	6	6.448	-.448	.448	.201	7.473%
September	3	6.359	-3.359	3.359	11.281	111.957%
October	5	5.687	-.687	.687	.472	13.739%
November	4	5.55	-1.55	1.55	2.401	38.739%
December	6	5.24	.76	.76	.578	12.672%
TOTALS	70		-3.041	17.247	43.866	353.263%
AVERAGE	5.833		-.276	1.568	3.988	32.115%
Next period forecast		5.392	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.208

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.5	1.5	1.5	2.25	21.429%
April	6	6.25	-.25	.25	.063	4.167%
May	10	6.125	3.875	3.875	15.016	38.75%
June	8	8.063	-.063	.063	.004	.781%
July	4	8.031	-4.031	4.031	16.251	100.781%
August	6	6.016	-.016	.016	.0	.26%
September	3	6.008	-3.008	3.008	9.047	100.26%
October	5	4.504	.496	.496	.246	9.922%
November	4	4.752	-.752	.752	.565	18.799%
December	6	4.376	1.624	1.624	2.637	27.067%
TOTALS	70		-1.624	16.614	47.079	342.216%
AVERAGE	5.833		-.148	1.51	4.28	31.111%
Next period forecast		5.188	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.287

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.2	1.8	1.8	3.24	25.714%
April	6	6.64	-.64	.64	.41	10.667%
May	10	6.128	3.872	3.872	14.992	38.72%
June	8	9.226	-1.226	1.226	1.502	15.32%
July	4	8.245	-4.245	4.245	18.021	106.128%
August	6	4.849	1.151	1.151	1.325	19.183%
September	3	5.77	-2.77	2.77	7.672	92.327%
October	5	3.554	1.446	1.446	2.091	28.921%
November	4	4.711	-.711	.711	.505	17.77%
December	6	4.142	1.858	1.858	3.452	30.964%
TOTALS	70		-.464	20.718	54.21	405.713%
AVERAGE	5.833		-.042	1.883	4.928	36.883%
Next period forecast		5.628	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.454

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.7	1.3	1.3	1.69	18.571%
April	6	6.09	-.09	.09	.008	1.5%
May	10	6.063	3.937	3.937	15.5	39.37%
June	8	7.244	-.756	.756	.571	9.449%
July	4	7.471	-3.471	3.471	12.047	86.772%
August	6	6.43	-.43	.43	.185	7.16%
September	3	6.301	-3.301	3.301	10.895	110.024%
October	5	5.311	-.311	.311	.096	6.21%
November	4	5.217	-1.217	1.217	1.482	30.434%
December	6	4.852	1.148	1.148	1.318	19.131%
TOTALS	70		-2.678	16.96	44.792	348.621%
AVERAGE	5.833		-.243	1.542	4.072	31.693%
Next period forecast		5.197	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.231

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.4	1.6	1.6	2.56	22.857%
April	6	6.36	-.36	.36	.13	6%
May	10	6.144	3.856	3.856	14.869	38.56%
June	8	8.458	-.458	.458	.209	5.72%
July	4	8.183	-4.183	4.183	17.498	104.576%
August	6	5.673	.327	.327	.107	5.446%
September	3	5.869	-2.869	2.869	8.233	95.643%
October	5	4.148	.852	.852	.726	17.046%
November	4	4.659	-.659	.659	.434	16.477%
December	6	4.264	1.736	1.736	3.015	28.939%
TOTALS	70		-1.158	17.9	48.781	361.265%
AVERAGE	5.833		-.105	1.627	4.435	32.842%
Next period forecast		5.305	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.328

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	6					
February	5	6	-1	1	1	20%
March	7	5.1	1.9	1.9	3.61	27.143%
April	6	6.81	-.81	.81	.656	13.5%
May	10	6.081	3.919	3.919	15.359	39.19%
June	8	9.608	-1.608	1.608	2.586	20.101%
July	4	8.161	-4.161	4.161	17.312	104.02%
August	6	4.416	1.584	1.584	2.509	26.399%
September	3	5.842	-2.842	2.842	8.075	94.72%
October	5	3.284	1.716	1.716	2.944	34.317%
November	4	4.828	-.828	.828	.686	20.71%
December	6	4.083	1.917	1.917	3.675	31.953%
TOTALS	70		-.213	22.285	58.412	432.053%
AVERAGE	5.833		-.019	2.026	5.31	39.278%
Next period forecast		5.808	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.548

2. Ditirang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.1	-1	.1	.01	2.5%
April	6	4.09	1.91	1.91	3.648	31.833%
May	8	4.281	3.719	3.719	13.831	46.488%
June	5	4.653	.347	.347	.12	6.942%
July	7	4.688	2.312	2.312	5.347	33.034%
August	10	4.919	5.081	5.081	25.818	50.812%
September	3	5.427	-2.427	2.427	5.89	80.899%
October	1	5.184	-4.184	4.184	17.508	418.427%
November	2	4.766	-2.766	2.766	7.65	138.292%
December	4	4.489	-.489	.489	.239	12.231%
TOTALS	59		4.403	24.336	81.062	841.458%
AVERAGE	4.917		.4	2.212	7.369	76.496%
Next period forecast		4.44	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.001	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.4	-.4	.4	.16	10%
April	6	4.24	1.76	1.76	3.098	29.333%
May	8	4.944	3.056	3.056	9.339	38.2%
June	5	6.166	-1.166	1.166	1.36	23.328%
July	7	5.7	1.3	1.3	1.69	18.574%
August	10	6.22	3.78	3.78	14.289	37.801%
September	3	7.732	-4.732	4.732	22.391	157.731%
October	1	5.839	-4.839	4.839	23.418	483.917%
November	2	3.903	-1.903	1.903	3.623	95.175%
December	4	3.142	.858	.858	.736	21.448%
TOTALS	59		-1.287	24.795	81.105	935.507%
AVERAGE	4.917		-.117	2.254	7.373	85.046%
Next period forecast		3.485	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.002	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.7	-.7	.7	.49	17.5%
April	6	4.21	1.79	1.79	3.204	29.833%
May	8	5.463	2.537	2.537	6.436	31.713%
June	5	7.239	-2.239	2.239	5.013	44.778%
July	7	5.672	1.328	1.328	1.764	18.976%
August	10	6.602	3.398	3.398	11.55	33.985%
September	3	8.98	-5.98	5.98	35.766	199.348%
October	1	4.794	-3.794	3.794	14.395	379.414%
November	2	2.138	-1.38	.138	.019	6.912%
December	4	2.041	1.959	1.959	3.836	48.963%
TOTALS	59		-.839	24.864	83.474	831.422%
AVERAGE	4.917		-.076	2.26	7.589	75.584%
Next period forecast		3.412	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.045	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.5	-.5	.5	.25	12.5%
April	6	4.25	1.75	1.75	3.063	29.167%
May	8	5.125	2.875	2.875	8.266	35.938%
June	5	6.563	-1.563	1.563	2.441	31.25%
July	7	5.781	1.219	1.219	1.485	17.411%
August	10	6.391	3.609	3.609	13.028	36.094%
September	3	8.195	-5.195	5.195	26.991	173.177%
October	1	5.598	-4.598	4.598	21.138	459.766%
November	2	3.299	-1.299	1.299	1.687	64.941%
December	4	2.649	1.351	1.351	1.824	33.765%
TOTALS	59		-1.351	24.958	81.173	914.007%
AVERAGE	4.917		-.123	2.269	7.379	83.092%
Next period forecast		3.325	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.003	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.8	-.8	.8	.64	20%
April	6	4.16	1.84	1.84	3.386	30.667%
May	8	5.632	2.368	2.368	5.607	29.6%
June	5	7.526	-2.526	2.526	6.383	50.528%
July	7	5.505	1.495	1.495	2.234	21.353%
August	10	6.701	3.299	3.299	10.883	32.989%
September	3	9.34	-6.34	6.34	40.198	211.34%
October	1	4.268	-3.268	3.268	10.68	326.804%
November	2	1.654	3.46	3.46	.12	17.32%
December	4	1.931	2.069	2.069	4.282	51.732%
TOTALS	59		-5.17	25.352	85.413	812.333%
AVERAGE	4.917		-.047	2.305	7.765	73.848%
Next period forecast		3.586	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.081	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.3	-.3	.3	.09	7.5%
April	6	4.21	1.79	1.79	3.204	29.833%
May	8	4.747	3.253	3.253	10.582	40.663%
June	5	5.723	-.723	.723	.523	14.458%
July	7	5.506	1.494	1.494	2.232	21.342%
August	10	5.954	4.046	4.046	16.368	40.458%
September	3	7.168	-4.168	4.168	17.372	138.932%
October	1	5.918	-4.918	4.918	24.182	491.757%
November	2	4.442	-2.442	2.442	5.965	122.115%
December	4	3.71	-.29	.29	.084	7.26%
TOTALS	59		-.678	24.424	81.602	934.317%
AVERAGE	4.917		-.062	2.22	7.418	84.938%
Next period forecast		3.797	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.011	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.6	-.6	.6	.36	15%
April	6	4.24	1.76	1.76	3.098	29.333%
May	8	5.296	2.704	2.704	7.312	33.8%
June	5	6.918	-1.918	1.918	3.68	38.368%
July	7	5.767	1.233	1.233	1.519	17.609%
August	10	6.507	3.493	3.493	12.201	34.931%
September	3	8.603	-5.603	5.603	31.391	186.759%
October	1	5.241	-4.241	4.241	17.987	424.111%
November	2	2.696	-.696	.696	.485	34.822%
December	4	2.279	1.721	1.721	2.963	43.036%
TOTALS	59		-1.148	24.97	81.997	877.769%
AVERAGE	4.917		-.104	2.27	7.454	79.797%
Next period forecast		3.311	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.018	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.9	-.9	.9	.81	22.5%
April	6	4.09	1.91	1.91	3.648	31.833%
May	8	5.809	2.191	2.191	4.8	27.388%
June	5	7.781	-2.781	2.781	7.733	55.618%
July	7	5.278	1.722	1.722	2.965	24.599%
August	10	6.828	3.172	3.172	10.063	31.722%
September	3	9.683	-6.683	6.683	44.66	222.759%
October	1	3.668	-2.668	2.668	7.12	266.828%
November	2	1.267	3.733	3.733	.538	36.659%
December	4	1.927	2.073	2.073	4.299	51.833%
TOTALS	59		-.23	25.834	87.635	791.738%
AVERAGE	4.917		-.021	2.349	7.967	71.976%
Next period forecast		3.793	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.12	



$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	7.5	1.5	1.5	2.25	16.667%
April	10	7.65	2.35	2.35	5.523	23.5%
May	13	7.885	5.115	5.115	26.163	39.346%
June	8	8.397	-0.397	.397	.157	4.956%
July	15	8.357	6.643	6.643	44.131	44.288%
August	11	9.021	1.979	1.979	3.916	17.989%
September	14	9.219	4.781	4.781	22.857	34.15%
October	17	9.697	7.303	7.303	53.332	42.958%
November	16	10.427	5.573	5.573	31.054	34.829%
December	15	10.985	4.015	4.015	16.123	26.769%
TOTALS	147		43.862	44.655	230.506	327.118%
AVERAGE	12.25		3.987	4.06	20.955	29.738%
Next period forecast		11.386	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.061	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	9	0	0	0	0%
April	10	9	1	1	1	10%
May	13	9.4	3.6	3.6	12.96	27.692%
June	8	10.84	-2.84	2.84	8.066	35.5%
July	15	9.704	5.296	5.296	28.048	35.307%
August	11	11.822	-.822	.822	.676	7.476%
September	14	11.493	2.507	2.507	6.283	17.904%
October	17	12.496	4.504	4.504	20.285	26.494%
November	16	14.298	1.702	1.702	2.898	10.64%
December	15	14.979	.021	.021	.0	.143%
TOTALS	147		19.968	27.293	105.216	212.822%
AVERAGE	12.25		1.815	2.481	9.565	19.347%
Next period forecast		14.987	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.419	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	10.5	-1.5	1.5	2.25	16.667%
April	10	9.45	.55	.55	.303	5.5%
May	13	9.835	3.165	3.165	10.017	24.346%
June	8	12.051	-4.051	4.051	16.407	50.631%
July	15	9.215	5.785	5.785	33.464	38.566%
August	11	13.265	-2.265	2.265	5.128	20.587%
September	14	11.679	2.321	2.321	5.385	16.576%
October	17	13.304	3.696	3.696	13.662	21.742%
November	16	15.891	-.109	.109	.012	.68%
December	15	15.967	-.967	.967	.936	6.449%
TOTALS	147		11.843	29.408	112.564	243.411%
AVERAGE	12.25		1.077	2.673	10.233	22.128%
Next period forecast		15.29	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.537	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	9.5	-.5	.5	.25	5.556%
April	10	9.25	.75	.75	.563	7.5%
May	13	9.625	3.375	3.375	11.391	25.962%
June	8	11.313	-3.313	3.313	10.973	41.406%
July	15	9.656	5.344	5.344	28.556	35.623%
August	11	12.328	-1.328	1.328	1.764	12.074%
September	14	11.664	2.336	2.336	5.457	16.683%
October	17	12.832	4.168	4.168	17.372	24.517%
November	16	14.916	1.084	1.084	1.175	6.775%
December	15	15.458	-.458	.458	.21	3.053%
TOTALS	147		16.458	27.655	102.709	220.82%
AVERAGE	12.25		1.496	2.514	9.337	20.075%
Next period forecast		15.229	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.378	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	11	-2	2	4	22.222%
April	10	9.4	.6	.6	.36	6%
May	13	9.88	3.12	3.12	9.734	24%
June	8	12.376	-4.376	4.376	19.149	54.7%
July	15	8.875	6.125	6.125	37.513	40.832%
August	11	13.775	-2.775	2.775	7.701	25.228%
September	14	11.555	2.445	2.445	5.978	17.464%
October	17	13.511	3.489	3.489	12.173	20.524%
November	16	16.302	-.302	.302	.091	1.889%
December	15	16.06	-1.06	1.06	1.125	7.07%
TOTALS	147		10.265	31.292	122.825	261.595%
AVERAGE	12.25		.933	2.845	11.166	23.781%
Next period forecast		15.212	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.694	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	8.5	-.5	.5	.25	5.556%
April	10	8.65	1.35	1.35	1.823	13.5%
May	13	9.055	3.945	3.945	15.563	30.346%
June	8	10.239	-2.239	2.239	5.011	27.981%
July	15	9.567	5.433	5.433	29.518	36.22%
August	11	11.197	-.197	.197	.039	1.79%
September	14	11.138	2.862	2.862	8.192	20.444%
October	17	11.996	5.004	5.004	25.035	29.433%
November	16	13.498	2.502	2.502	6.262	15.64%
December	15	14.248	-.752	.752	.565	5.012%
TOTALS	147		24.913	29.783	117.258	227.589%
AVERAGE	12.25		2.265	2.708	10.66	20.69%
Next period forecast		14.474	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.61	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	10	-1	1	1	11.111%
April	10	9.4	.6	.6	.36	6%
May	13	9.76	3.24	3.24	10.498	24.923%
June	8	11.704	-3.704	3.704	13.72	46.3%
July	15	9.482	5.518	5.518	30.453	36.789%
August	11	12.793	-1.793	1.793	3.214	16.297%
September	14	11.717	2.283	2.283	5.212	16.307%
October	17	13.087	3.913	3.913	15.313	23.019%
November	16	15.435	-.655	.655	.32	3.533%
December	15	15.774	-.774	.774	.599	5.159%
TOTALS	147		13.849	28.39	105.687	231.105%
AVERAGE	12.25		1.259	2.581	9.608	21.01%
Next period forecast		15.31	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.427	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	12	7	5	5	25	41.667%
March	9	11.5	-2.5	2.5	6.25	27.778%
April	10	9.25	.75	.75	.563	7.5%
May	13	9.925	3.075	3.075	9.456	23.654%
June	8	12.693	-4.693	4.693	22.02	58.656%
July	15	8.469	6.531	6.531	42.651	43.538%
August	11	14.347	-3.347	3.347	11.202	30.427%
September	14	11.335	2.665	2.665	7.104	19.038%
October	17	13.733	3.267	3.267	10.67	19.215%
November	16	16.673	-.673	.673	.453	4.208%
December	15	16.067	-1.067	1.067	1.139	7.116%
TOTALS	147		9.007	33.568	136.507	282.796%
AVERAGE	12.25		.819	3.052	12.41	25.709%
Next period forecast		15.107	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.895	

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.1	-1.1	1.1	1.21	27.5%
April	5	4.99	.01	.01	.0	.2%
May	3	4.991	-1.991	1.991	3.964	66.367%
June	2	4.792	-2.792	2.792	7.795	139.595%
July	5	4.513	.487	.487	.237	9.746%
August	4	4.561	-.561	.561	.315	14.036%
September	3	4.505	-1.505	1.505	2.266	50.176%
October	3	4.355	-1.355	1.355	1.835	45.159%
November	5	4.219	.781	.781	.61	15.614%
December	2	4.297	-2.297	2.297	5.278	114.868%
TOTALS	47		-9.324	13.88	24.51	499.928%
AVERAGE	3.917		-.848	1.262	2.228	45.448%
Next period forecast		4.068	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.65	

$\alpha = 0,4$

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.4	-1.4	1.4	1.96	35%
April	5	4.84	.16	.16	.026	3.2%
May	3	4.904	-1.904	1.904	3.625	63.467%
June	2	4.142	-2.142	2.142	4.59	107.12%
July	5	3.285	1.715	1.715	2.94	34.291%
August	4	3.971	.029	.029	.001	.718%
September	3	3.983	-.983	.983	.966	32.759%
October	3	3.59	-.59	.59	.348	19.655%
November	5	3.354	1.646	1.646	2.71	32.924%
December	2	4.012	-2.012	2.012	4.049	100.614%
TOTALS	47		-4.482	13.581	22.214	446.415%
AVERAGE	3.917		-.407	1.235	2.019	40.583%
Next period forecast		3.207	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.571	

$\alpha = 0,7$

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.7	-1.7	1.7	2.89	42.5%
April	5	4.51	.49	.49	.24	9.8%
May	3	4.853	-1.853	1.853	3.434	61.767%
June	2	3.556	-1.556	1.556	2.421	77.795%
July	5	2.467	2.533	2.533	6.417	50.665%
August	4	4.24	-.24	.24	.058	6.001%
September	3	4.072	-1.072	1.072	1.149	35.734%
October	3	3.322	-.322	.322	.103	10.72%
November	5	3.096	1.904	1.904	3.623	38.07%
December	2	4.429	-2.429	2.429	5.9	121.447%
TOTALS	47		-3.245	15.098	27.235	471.165%
AVERAGE	3.917		-.295	1.373	2.476	42.833%
Next period forecast		2.729	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.74	

$\alpha = 0,5$

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.5	-1.5	1.5	2.25	37.5%
April	5	4.75	.25	.25	.063	5%
May	3	4.875	-1.875	1.875	3.516	62.5%
June	2	3.938	-1.938	1.938	3.754	96.875%
July	5	2.969	2.031	2.031	4.126	40.625%
August	4	3.984	.016	.016	.0	.391%
September	3	3.992	-.992	.992	.984	33.073%
October	3	3.496	-.496	.496	.246	16.536%
November	5	3.248	1.752	1.752	3.069	35.039%
December	2	4.124	-2.124	2.124	4.511	106.201%
TOTALS	47		-3.876	13.974	23.52	450.407%
AVERAGE	3.917		-.352	1.27	2.138	40.946%
Next period forecast		3.062	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.617	

$\alpha = 0,8$

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.8	-1.8	1.8	3.24	45%
April	5	4.36	.64	.64	.41	12.8%
May	3	4.872	-1.872	1.872	3.504	62.4%
June	2	3.374	-1.374	1.374	1.889	68.72%
July	5	2.275	2.725	2.725	7.426	54.502%
August	4	4.455	-.455	.455	.207	11.374%
September	3	4.091	-1.091	1.091	1.19	36.367%
October	3	3.218	-.218	.218	.048	7.273%
November	5	3.044	1.956	1.956	3.827	39.127%
December	2	4.609	-2.609	2.609	6.805	130.436%
TOTALS	47		-3.098	15.741	29.547	484.667%
AVERAGE	3.917		-.282	1.431	2.686	44.061%
Next period forecast		2.522	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.812	

$\alpha = 0,9$

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.3	-1.3	1.3	1.69	32.5%
April	5	4.91	.09	.09	.008	1.8%
May	3	4.937	-1.937	1.937	3.752	64.567%
June	2	4.356	-2.356	2.356	5.55	117.795%
July	5	3.649	1.351	1.351	1.825	27.017%
August	4	4.054	-.054	.054	.003	1.36%
September	3	4.038	-1.038	1.038	1.078	34.602%
October	3	3.727	-.727	.727	.528	24.222%
November	5	3.509	1.491	1.491	2.224	29.827%
December	2	3.956	-1.956	1.956	3.826	97.803%
TOTALS	47		-5.436	13.3	21.484	448.16%
AVERAGE	3.917		-.494	1.209	1.953	40.742%
Next period forecast		3.369	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.545	

$\alpha = 0,6$

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.6	-1.6	1.6	2.56	40%
April	5	4.64	.36	.36	.13	7.2%
May	3	4.856	-1.856	1.856	3.445	61.867%
June	2	3.742	-1.742	1.742	3.036	87.12%
July	5	2.697	2.303	2.303	5.304	46.061%
August	4	4.079	-.079	.079	.006	1.97%
September	3	4.032	-1.032	1.032	1.064	34.384%
October	3	3.413	-.413	.413	.17	13.754%
November	5	3.165	1.835	1.835	3.367	36.699%
December	2	4.266	-2.266	2.266	5.135	113.301%
TOTALS	47		-3.489	14.485	25.217	459.021%
AVERAGE	3.917		-.317	1.317	2.292	41.729%
Next period forecast		2.906	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.674	

$\alpha = 0,9$

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	5					
February	6	5	1	1	1	16.667%
March	4	5.9	-1.9	1.9	3.61	47.5%
April	5	4.19	.81	.81	.656	16.2%
May	3	4.919	-1.919	1.919	3.683	63.967%
June	2	3.192	-1.192	1.192	1.421	59.595%
July	5	2.119	2.881	2.881	8.299	57.616%
August	4	4.712	-.712	.712	.507	17.798%
September	3	4.071	-1.071	1.071	1.147	35.706%
October	3	3.107	-.107	.107	.011	3.571%
November	5	3.011	1.989	1.989	3.957	39.786%
December	2	4.801	-2.801	2.801	7.846	140.054%
TOTALS	47		-3.022	16.382	32.137	498.459%
AVERAGE	3.917		-.275	1.489	2.922	45.314%
Next period forecast		2.28	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.89	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.1	1.9	1.9	3.61	38%
April	7	3.29	3.71	3.71	13.764	53%
May	2	3.661	-1.661	1.661	2.759	83.05%
June	5	3.495	1.505	1.505	2.265	30.102%
July	3	3.645	-0.645	0.645	.417	21.514%
August	8	3.581	4.419	4.419	19.529	55.239%
September	7	4.023	2.977	2.977	8.864	42.532%
October	4	4.321	-0.321	0.321	.103	8.013%
November	7	4.288	2.712	2.712	7.352	38.736%
December	2	4.56	-2.56	2.56	6.552	127.98%
TOTALS	57		13.036	23.41	66.214	523.166%
AVERAGE	4.75		1.185	2.128	6.019	47.561%
Next period forecast		4.304	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.712	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.4	1.6	1.6	2.56	32%
April	7	4.04	2.96	2.96	8.762	42.286%
May	2	5.224	-3.224	3.224	10.394	161.2%
June	5	3.934	1.066	1.066	1.136	21.312%
July	3	4.361	-1.361	1.361	1.851	45.355%
August	8	3.816	4.184	4.184	17.503	52.295%
September	7	5.49	1.51	1.51	2.281	21.574%
October	4	6.094	-2.094	2.094	4.384	52.347%
November	7	5.256	1.744	1.744	3.04	24.909%
December	2	5.954	-3.954	3.954	15.633	197.69%
TOTALS	57		3.431	24.695	68.543	675.968%
AVERAGE	4.75		.312	2.245	6.231	61.452%
Next period forecast		4.372	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.76	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.7	1.3	1.3	1.69	26%
April	7	4.61	2.39	2.39	5.712	34.143%
May	2	6.283	-4.283	4.283	18.344	214.15%
June	5	3.285	1.715	1.715	2.942	34.302%
July	3	4.485	-1.485	1.485	2.207	49.516%
August	8	3.446	4.554	4.554	20.742	56.929%
September	7	6.634	0.366	0.366	.134	5.233%
October	4	6.89	-2.89	2.89	8.353	72.253%
November	7	4.867	2.133	2.133	4.55	30.471%
December	2	6.36	-4.36	4.36	19.011	218.006%
TOTALS	57		.44	26.477	84.684	766.002%
AVERAGE	4.75		.04	2.407	7.699	69.637%
Next period forecast		3.308	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.067	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.5	1.5	1.5	2.25	30%
April	7	4.25	2.75	2.75	7.563	39.286%
May	2	5.625	-3.625	3.625	13.141	181.25%
June	5	3.813	1.188	1.188	1.41	23.75%
July	3	4.406	-1.406	1.406	1.978	46.875%
August	8	3.703	4.297	4.297	18.463	53.711%
September	7	5.852	1.148	1.148	1.319	16.406%
October	4	6.426	-2.426	2.426	5.884	60.645%
November	7	5.213	1.787	1.787	3.194	25.53%
December	2	6.106	-4.106	4.106	16.863	205.322%
TOTALS	57		2.106	25.233	73.064	707.775%
AVERAGE	4.75		.191	2.294	6.642	64.343%
Next period forecast		4.053	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.849	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.8	1.2	1.2	1.44	24%
April	7	4.76	2.24	2.24	5.018	32%
May	2	6.552	-4.552	4.552	20.721	227.6%
June	5	2.91	2.09	2.09	4.366	41.792%
July	3	4.582	-1.582	1.582	2.503	52.736%
August	8	3.316	4.684	4.684	21.936	58.545%
September	7	7.063	-0.063	0.063	.004	0.904%
October	4	7.013	-3.013	3.013	9.076	75.316%
November	7	4.603	2.397	2.397	5.748	34.25%
December	2	6.521	-4.521	4.521	20.435	226.025%
TOTALS	57		-.12	27.341	92.247	798.168%
AVERAGE	4.75		-.011	2.486	8.386	72.561%
Next period forecast		2.904	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.202	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.3	1.7	1.7	2.89	34%
April	7	3.81	3.19	3.19	10.176	45.571%
May	2	4.767	-2.767	2.767	7.656	138.35%
June	5	3.937	1.063	1.063	1.13	21.262%
July	3	4.256	-1.256	1.256	1.577	41.861%
August	8	3.879	4.121	4.121	16.982	51.511%
September	7	5.115	1.885	1.885	3.552	26.923%
October	4	5.681	-1.681	1.681	2.825	42.019%
November	7	5.177	1.823	1.823	3.325	26.05%
December	2	5.724	-3.724	3.724	13.865	186.178%
TOTALS	57		5.355	24.209	64.978	638.726%
AVERAGE	4.75		.487	2.201	5.907	58.066%
Next period forecast		4.606	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.687	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.6	1.4	1.4	1.96	28%
April	7	4.44	2.56	2.56	6.554	36.571%
May	2	5.976	-3.976	3.976	15.809	198.8%
June	5	3.59	1.41	1.41	1.987	28.192%
July	3	4.436	-1.436	1.436	2.063	47.872%
August	8	3.574	4.426	4.426	19.585	55.319%
September	7	6.23	.77	.77	.593	11.003%
October	4	6.692	-2.692	2.692	7.246	67.298%
November	7	5.077	1.923	1.923	3.699	27.475%
December	2	6.231	-4.231	4.231	17.899	211.535%
TOTALS	57		1.154	25.823	78.394	737.066%
AVERAGE	4.75		.105	2.348	7.127	67.006%
Next period forecast		3.692	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.951	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	4	3	1	1	1	25%
March	5	3.9	1.1	1.1	1.21	22%
April	7	4.89	2.11	2.11	4.452	30.143%
May	2	6.789	-4.789	4.789	22.935	239.45%
June	5	2.479	2.521	2.521	6.356	50.422%
July	3	4.748	-1.748	1.748	3.055	58.263%
August	8	3.175	4.825	4.825	23.283	60.315%
September	7	7.517	-.517	.517	.268	7.393%
October	4	7.052	-3.052	3.052	9.313	76.294%
November	7	4.305	2.695	2.695	7.262	38.498%
December	2	6.731	-4.731	4.731	22.378	236.526%
TOTALS	57		-.585	29.088	101.511	844.303%
AVERAGE	4.75		-.053	2.644	9.228	76.755%
Next period forecast		2.473	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.338	



Aspect 15 Mg/5 MI

$\alpha = 0,1$

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.1	2.9	2.9	8.41	58%
April	4	2.39	1.61	1.61	2.592	40.25%
May	8	2.551	5.449	5.449	29.692	68.113%
June	5	3.096	1.904	1.904	3.626	38.082%
July	8	3.286	4.714	4.714	22.219	58.921%
August	4	3.758	242	242	.059	6.058%
September	2	3.782	-1.782	1.782	3.175	89.069%
October	3	3.604	-6.04	6.04	364	20.124%
November	4	3.543	457	457	.209	11.416%
December	2	3.589	-1.589	1.589	2.525	79.451%
TOTALS	50		14.301	22.25	73.87	502.844%
AVERAGE	4.167		1.3	2.023	6.715	45.713%
Next period forecast		3.43	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.865	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.4	2.6	2.6	6.76	52%
April	4	3.44	-.56	.56	.314	14%
May	8	3.664	4.336	4.336	18.801	54.2%
June	5	5.398	-.398	.398	.159	7.968%
July	8	5.239	2.761	2.761	7.623	34.512%
August	4	6.343	-2.343	2.343	5.492	58.586%
September	2	5.406	-3.406	3.406	11.601	170.303%
October	3	4.044	-1.044	1.044	1.089	34.788%
November	4	3.626	.374	.374	.14	9.346%
December	2	3.776	-1.776	1.776	3.153	88.785%
TOTALS	50		2.664	20.598	56.131	557.82%
AVERAGE	4.167		.242	1.873	5.103	50.711%
Next period forecast		3.065	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.497	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.7	2.3	2.3	5.29	46%
April	4	4.31	-.31	.31	.096	7.75%
May	8	4.093	3.907	3.907	15.265	48.838%
June	5	6.828	-1.828	1.828	3.341	36.558%
July	8	5.548	2.452	2.452	6.01	30.645%
August	4	7.265	-3.265	3.265	10.657	81.613%
September	2	4.979	-2.979	2.979	8.877	148.968%
October	3	2.894	.106	.106	.011	3.54%
November	4	2.968	1.032	1.032	1.065	25.796%
December	2	3.69	-1.69	1.69	2.838	84.522%
TOTALS	50		.724	20.869	54.47	547.563%
AVERAGE	4.167		.066	1.897	4.952	49.778%
Next period forecast		2.507	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.46	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.5	2.5	2.5	6.25	50%
April	4	3.75	-.25	.25	.063	6.25%
May	8	3.875	4.125	4.125	17.016	51.563%
June	5	5.938	-.938	.938	.879	18.75%
July	8	5.469	2.531	2.531	6.407	31.641%
August	4	6.734	-2.734	2.734	7.477	68.359%
September	2	5.367	-3.367	3.367	11.338	168.359%
October	3	3.684	-.684	.684	.467	22.786%
November	4	3.342	.658	.658	.433	16.455%
December	2	3.671	-1.671	1.671	2.792	83.545%
TOTALS	50		1.671	20.458	54.121	551.042%
AVERAGE	4.167		.152	1.86	4.92	50.095%
Next period forecast		2.835	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.452	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.8	2.2	2.2	4.84	44%
April	4	4.56	-.56	.56	.314	14%
May	8	4.112	3.888	3.888	15.117	48.6%
June	5	7.222	-2.222	2.222	4.939	44.448%
July	8	5.444	2.556	2.556	6.531	31.944%
August	4	7.489	-3.489	3.489	12.172	87.222%
September	2	4.698	-2.698	2.698	7.278	134.889%
October	3	2.54	.46	.46	.212	15.348%
November	4	2.908	1.092	1.092	1.193	27.302%
December	2	3.782	-1.782	1.782	3.174	89.079%
TOTALS	50		.445	21.947	56.769	570.166%
AVERAGE	4.167		.04	1.995	5.161	51.833%
Next period forecast		2.356	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.512	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.6	2.4	2.4	5.76	48%
April	4	4.04	-.04	.04	.002	1%
May	8	4.016	3.984	3.984	15.872	49.8%
June	5	6.406	-1.406	1.406	1.978	28.128%
July	8	5.563	2.437	2.437	5.941	30.468%
August	4	7.025	-3.025	3.025	9.151	75.626%
September	2	5.21	-3.21	3.21	10.304	160.501%
October	3	3.284	-.284	.284	.081	9.467%
November	4	3.114	.886	.886	.786	22.16%
December	2	3.645	-1.645	1.645	2.707	82.272%
TOTALS	50		1.097	20.319	53.582	540.754%
AVERAGE	4.167		.1	1.847	4.871	49.159%
Next period forecast		2.658	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.44	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	5	2.9	2.1	2.1	4.41	42%
April	4	4.79	-.79	.79	.624	19.75%
May	8	4.079	3.921	3.921	15.374	49.013%
June	5	7.608	-2.608	2.608	6.801	52.158%
July	8	5.261	2.739	2.739	7.503	34.24%
August	4	7.726	-3.726	3.726	13.884	93.152%
September	2	4.373	-2.373	2.373	5.629	118.63%
October	3	2.237	.763	.763	.582	25.425%
November	4	2.924	1.076	1.076	1.158	26.907%
December	2	3.892	-1.892	1.892	3.581	94.619%
TOTALS	50		.21	22.988	60.547	589.226%
AVERAGE	4.167		.019	2.09	5.504	53.566%
Next period forecast		2.189	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.594	



2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.9	1.1	1.1	1.21	12.222%
April	7	8.01	-1.01	1.01	1.02	14.429%
May	8	7.909	.091	.091	.008	1.137%
June	6	7.918	-1.918	1.918	3.679	31.968%
July	8	7.726	.274	.274	.075	3.421%
August	10	7.754	2.246	2.246	5.046	22.463%
September	9	7.978	1.022	1.022	1.044	11.352%
October	11	8.08	2.92	2.92	8.524	26.541%
November	8	8.372	-.372	.372	.139	4.655%
December	10	8.335	1.665	1.665	2.772	16.648%
TOTALS	101		5.017	13.618	24.516	159.124%
AVERAGE	8.417		.456	1.238	2.229	14.466%
Next period forecast		8.502	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.65	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.6	1.4	1.4	1.96	15.556%
April	7	8.16	-1.16	1.16	1.346	16.571%
May	8	7.696	.304	.304	.092	3.8%
June	6	7.818	-1.818	1.818	3.304	30.293%
July	8	7.091	.909	.909	.827	11.368%
August	10	7.454	2.546	2.546	6.48	25.457%
September	9	8.473	-.527	.527	.278	5.86%
October	11	8.684	2.316	2.316	5.366	21.059%
November	8	9.61	-1.61	1.61	2.593	20.127%
December	10	8.966	1.034	1.034	1.069	10.339%
TOTALS	101		3.449	14.625	24.315	174.715%
AVERAGE	8.417		.314	1.33	2.21	15.883%
Next period forecast		9.38	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.644	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.3	1.7	1.7	2.89	18.889%
April	7	8.49	-1.49	1.49	2.22	21.286%
May	8	7.447	.553	.553	.306	6.912%
June	6	7.834	-1.834	1.834	3.364	30.568%
July	8	6.55	1.45	1.45	2.102	18.122%
August	10	7.565	2.435	2.435	5.929	24.349%
September	9	9.27	-.27	.27	.073	2.995%
October	11	9.081	1.919	1.919	3.683	17.447%
November	8	10.424	-2.424	2.424	5.877	30.303%
December	10	8.727	1.273	1.273	1.62	12.727%
TOTALS	101		2.312	16.347	29.063	197.885%
AVERAGE	8.417		.21	1.486	2.642	17.99%
Next period forecast		9.618	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.797	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.8	1.2	1.2	1.44	13.333%
April	7	8.04	-1.04	1.04	1.082	14.857%
May	8	7.832	.168	.168	.028	2.1%
June	6	7.866	-1.866	1.866	3.48	31.093%
July	8	7.492	.508	.508	.258	6.344%
August	10	7.594	2.406	2.406	5.789	24.06%
September	9	8.075	.925	.925	.855	10.276%
October	11	8.26	2.74	2.74	7.507	24.908%
November	8	8.808	-.808	.808	.653	10.101%
December	10	8.646	1.354	1.354	1.832	13.535%
TOTALS	101		4.586	14.013	23.924	164.894%
AVERAGE	8.417		.417	1.274	2.175	14.99%
Next period forecast		8.917	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.63	

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.5	1.5	1.5	2.25	16.667%
April	7	8.25	-1.25	1.25	1.563	17.857%
May	8	7.625	.375	.375	.141	4.688%
June	6	7.813	-1.813	1.813	3.285	30.208%
July	8	6.906	1.094	1.094	1.196	13.672%
August	10	7.453	2.547	2.547	6.487	25.469%
September	9	8.727	.273	.273	.075	3.038%
October	11	8.863	2.137	2.137	4.566	19.425%
November	8	9.932	-1.932	1.932	3.731	24.146%
December	10	8.966	1.034	1.034	1.07	10.342%
TOTALS	101		2.966	14.954	25.362	179.796%
AVERAGE	8.417		.27	1.359	2.306	16.345%
Next period forecast		9.483	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.679	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.2	1.8	1.8	3.24	20%
April	7	8.64	-1.64	1.64	2.69	23.429%
May	8	7.328	.672	.672	.452	8.4%
June	6	7.866	-1.866	1.866	3.48	31.093%
July	8	6.373	1.627	1.627	2.647	20.366%
August	10	7.675	2.325	2.325	5.407	23.254%
September	9	9.535	-.535	.535	.286	5.944%
October	11	9.107	1.893	1.893	3.584	17.209%
November	8	10.621	-2.621	2.621	6.872	32.767%
December	10	8.524	1.476	1.476	2.178	14.757%
TOTALS	101		2.131	17.455	31.835	211.475%
AVERAGE	8.417		.194	1.587	2.894	19.225%
Next period forecast		9.705	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.881	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.7	1.3	1.3	1.69	14.444%
April	7	8.09	-1.09	1.09	1.188	15.571%
May	8	7.763	.237	.237	.056	2.963%
June	6	7.834	-1.834	1.834	3.364	30.568%
July	8	7.284	.716	.716	.513	8.952%
August	10	7.499	2.501	2.501	6.256	25.013%
September	9	8.249	.751	.751	.564	8.343%
October	11	8.474	2.526	2.526	6.379	22.96%
November	8	9.232	-1.232	1.232	1.518	15.401%
December	10	8.862	1.138	1.138	1.294	11.376%
TOTALS	101		4.012	14.325	23.822	169.877%
AVERAGE	8.417		.365	1.302	2.166	15.443%
Next period forecast		9.204	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.627	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.4	1.6	1.6	2.56	17.778%
April	7	8.36	-1.36	1.36	1.85	19.429%
May	8	7.544	.456	.456	.208	5.7%
June	6	7.818	-1.818	1.818	3.304	30.293%
July	8	6.727	1.273	1.273	1.62	15.912%
August	10	7.491	2.509	2.509	6.296	25.092%
September	9	8.996	-.004	.004	0	.041%
October	11	8.999	2.001	2.001	4.006	18.195%
November	8	10.199	-2.199	2.199	4.837	27.493%
December	10	8.88	1.12	1.12	1.255	11.202%
TOTALS	101		2.587	15.341	26.936	185.42%
AVERAGE	8.417		.235	1.395	2.449	16.856%
Next period forecast		9.552	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.73	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	7	8	-1	1	1	14.286%
March	9	7.1	1.9	1.9	3.61	21.111%
April	7	8.81	-1.81	1.81	3.276	25.857%
May	8	7.181	.819	.819	.671	10.238%
June	6	7.918	-1.918	1.918	3.679	31.968%
July	8	6.192	1.808	1.808	3.27	22.602%
August	10	7.819	2.181	2.181	4.756	21.808%
September	9	9.782	-.782	.782	.611	8.688%
October	11	9.078	1.922	1.922	3.693	17.471%
November	8	10.808	-2.808	2.808	7.884	35.098%
December	10	8.281	1.719	1.719	2.956	17.192%
TOTALS	101		2.031	18.667	35.406	226.319%
AVERAGE	8.417		.185	1.697	3.219	20.574%
Next period forecast		9.828	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.983	



Phenylin 100 Mg Capsule

2. Diarahkan mengemukakan dan memperbaiki sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suka Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.1	-1	.1	.01	2.5%
April	3	4.09	-1.09	1.09	1.188	36.333%
May	6	3.981	2.019	2.019	4.076	33.65%
June	4	4.183	-.183	.183	.033	4.572%
July	7	4.165	2.835	2.835	8.039	40.506%
August	3	4.448	-1.448	1.448	2.097	48.272%
September	10	4.303	5.697	5.697	32.452	56.967%
October	3	4.873	-1.873	1.873	3.508	62.433%
November	2	4.686	-2.686	2.686	7.213	134.285%
December	4	4.417	-.417	.417	.174	10.428%
TOTALS	55		3.754	19.348	59.792	449.946%
AVERAGE	4.583		.341	1.759	5.436	40.904%
Next period forecast		4.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.578	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.4	-.4	.4	.16	10%
April	3	4.24	-1.24	1.24	1.538	41.333%
May	6	3.744	2.256	2.256	5.09	37.6%
June	4	4.646	-.646	.646	.418	16.16%
July	7	4.388	2.612	2.612	6.823	37.317%
August	3	5.433	-2.433	2.433	5.918	81.09%
September	10	4.46	5.54	5.54	30.696	55.404%
October	3	6.676	-3.676	3.676	13.511	122.526%
November	2	5.205	-3.205	3.205	10.275	160.273%
December	4	3.923	.077	.077	.006	1.918%
TOTALS	55		-.115	23.086	75.434	583.621%
AVERAGE	4.583		-0.01	2.099	6.858	53.056%
Next period forecast		3.954	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.895	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.7	-.7	.7	.49	17.5%
April	3	4.21	-1.21	1.21	1.464	40.333%
May	6	3.363	2.637	2.637	6.954	43.95%
June	4	5.209	-1.209	1.209	1.461	30.223%
July	7	4.363	2.637	2.637	6.956	37.676%
August	3	6.209	-3.209	3.209	10.296	106.96%
September	10	3.963	6.037	6.037	36.45	60.374%
October	3	8.189	-5.189	5.189	26.924	172.96%
November	2	4.557	-2.557	2.557	6.536	127.832%
December	4	2.767	1.233	1.233	1.52	30.825%
TOTALS	55		-.528	27.618	100.051	688.632%
AVERAGE	4.583		-.048	2.511	9.096	62.603%
Next period forecast		3.63	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.334	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.5	-.5	.5	.25	12.5%
April	3	4.25	-1.25	1.25	1.563	41.667%
May	6	3.625	2.375	2.375	5.641	39.583%
June	4	4.813	-.813	.813	.66	20.313%
July	7	4.406	2.594	2.594	6.728	37.054%
August	3	5.703	-2.703	2.703	7.307	90.104%
September	10	4.352	5.648	5.648	31.905	56.484%
October	3	7.176	-4.176	4.176	17.437	139.193%
November	2	5.088	-3.088	3.088	9.535	154.395%
December	4	3.544	.456	.456	.208	11.401%
TOTALS	55		-.456	24.603	82.233	622.693%
AVERAGE	4.583		-.041	2.237	7.476	56.608%
Next period forecast		3.772	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.023	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.8	-.8	.8	.64	20%
April	3	4.16	-1.16	1.16	1.346	38.667%
May	6	3.232	2.768	2.768	7.662	46.133%
June	4	5.446	-1.446	1.446	2.092	36.16%
July	7	4.289	2.711	2.711	7.348	38.725%
August	3	6.458	-3.458	3.458	11.957	115.262%
September	10	3.692	6.308	6.308	39.796	63.084%
October	3	8.738	-5.738	5.738	32.928	191.277%
November	2	4.148	-2.148	2.148	4.612	107.383%
December	4	2.43	1.57	1.57	2.466	39.262%
TOTALS	55		-.393	29.108	111.848	715.953%
AVERAGE	4.583		-.036	2.646	10.168	65.087%
Next period forecast		3.686	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.525	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.3	-.3	.3	.09	7.5%
April	3	4.21	-1.21	1.21	1.464	40.333%
May	6	3.847	2.153	2.153	4.635	35.883%
June	4	4.493	-.493	.493	.243	12.323%
July	7	4.345	2.655	2.655	7.049	37.928%
August	3	5.142	-2.142	2.142	4.586	71.384%
September	10	4.499	5.501	5.501	30.26	55.009%
October	3	6.149	-3.149	3.149	9.918	104.978%
November	2	5.205	-3.205	3.205	10.269	160.277%
December	4	4.243	-.243	.243	.059	6.079%
TOTALS	55		.567	22.05	69.574	551.645%
AVERAGE	4.583		.052	2.005	6.325	50.15%
Next period forecast		4.17	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.78	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.6	-.6	.6	.36	15%
April	3	4.24	-1.24	1.24	1.538	41.333%
May	6	3.496	2.504	2.504	6.27	41.733%
June	4	4.998	-.998	.998	.997	24.96%
July	7	4.399	2.601	2.601	6.763	37.152%
August	3	5.96	-2.96	2.96	8.76	98.658%
September	10	4.184	5.816	5.816	33.827	58.161%
October	3	7.674	-4.674	4.674	21.842	155.785%
November	2	4.869	-2.869	2.869	8.234	143.471%
December	4	3.148	.852	.852	.726	21.306%
TOTALS	55		-.568	26.114	90.317	657.56%
AVERAGE	4.583		-.052	2.374	8.211	59.778%
Next period forecast		3.659	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.168	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	5	4	1	1	1	20%
March	4	4.9	-.9	.9	.81	22.5%
April	3	4.09	-1.09	1.09	1.188	36.333%
May	6	3.109	2.891	2.891	8.358	48.183%
June	4	5.711	-1.711	1.711	2.927	42.773%
July	7	4.171	2.829	2.829	8.003	40.413%
August	3	6.717	-3.717	3.717	13.817	123.904%
September	10	3.372	6.628	6.628	43.934	66.283%
October	3	9.337	-6.337	6.337	40.16	211.239%
November	2	3.634	-1.634	1.634	2.669	81.686%
December	4	2.163	1.837	1.837	3.373	45.916%
TOTALS	55		-.204	30.574	126.239	739.229%
AVERAGE	4.583		-.019	2.779	11.476	67.203%
Next period forecast		3.816	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.745	

2. Diarahkan mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UNISSA Riau.

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	4.2	.8	.8	.64	16%
April	7	4.28	2.72	2.72	7.398	38.857%
May	4	4.552	-.552	.552	.305	13.8%
June	9	4.497	4.503	4.503	20.279	50.036%
July	4	4.947	-.947	.947	.897	23.678%
August	3	4.852	-1.852	1.852	3.431	61.747%
September	6	4.667	1.333	1.333	1.776	22.214%
October	4	4.8	-.8	.8	.641	20.011%
November	3	4.72	-1.72	1.72	2.96	57.347%
December	4	4.548	-.548	.548	.301	13.709%
TOTALS	59		4.935	17.777	42.628	350.732%
AVERAGE	4.917		.449	1.616	3.875	31.885%
Next period forecast		4.494	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.176	

$\alpha = 0,4$

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	4.8	-.2	.2	.04	4%
April	7	4.88	2.12	2.12	4.494	30.286%
May	4	5.728	-1.728	1.728	2.986	43.2%
June	9	5.037	3.963	3.963	15.707	44.036%
July	4	6.622	-2.622	2.622	6.875	65.552%
August	3	5.573	-2.573	2.573	6.622	85.775%
September	6	4.544	1.456	1.456	2.12	24.268%
October	4	5.126	-1.126	1.126	1.269	28.159%
November	3	4.676	-1.676	1.676	2.808	55.861%
December	4	4.005	-.005	.005	0	.137%
TOTALS	59		.008	19.47	46.921	414.606%
AVERAGE	4.917		.001	1.77	4.266	37.691%
Next period forecast		4.003	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.283	

$\alpha = 0,7$

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	5.4	-.4	.4	.16	8%
April	7	5.12	1.88	1.88	3.534	26.857%
May	4	6.436	-2.436	2.436	5.934	60.9%
June	9	4.731	4.269	4.269	18.226	47.436%
July	4	7.719	-3.719	3.719	13.833	92.981%
August	3	5.116	-2.116	2.116	4.476	70.526%
September	6	3.635	2.365	2.365	5.594	39.421%
October	4	5.29	-1.29	1.29	1.665	32.26%
November	3	4.387	-1.387	1.387	1.924	46.238%
December	4	3.416	.584	.584	.341	14.597%
TOTALS	59		-.25	22.447	59.689	472.548%
AVERAGE	4.917		-.023	2.041	5.426	42.959%
Next period...		3.825	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.575	

$\alpha = 0,5$

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	5	0	0	0	0%
April	7	5	2	2	4	28.571%
May	4	6	-2	2	4	50%
June	9	5	4	4	16	44.444%
July	4	7	-3	3	9	75%
August	3	5.5	-2.5	2.5	6.25	83.333%
September	6	4.25	1.75	1.75	3.063	29.167%
October	4	5.125	-1.125	1.125	1.266	28.125%
November	3	4.563	-1.563	1.563	2.441	52.083%
December	4	3.781	.219	.219	.048	5.469%
TOTALS	59		-.219	20.156	50.067	429.526%
AVERAGE	4.917		-.02	1.832	4.552	39.048%
Next period forecast		3.891	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.359	

$\alpha = 0,8$

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	5.6	-.6	.6	.36	12%
April	7	5.12	1.88	1.88	3.534	26.857%
May	4	6.624	-2.624	2.624	6.885	65.6%
June	9	4.525	4.475	4.475	20.027	49.724%
July	4	8.105	-4.105	4.105	16.851	102.624%
August	3	4.821	-1.821	1.821	3.316	60.7%
September	6	3.364	2.636	2.636	6.947	43.93%
October	4	5.473	-1.473	1.473	2.169	36.821%
November	3	4.295	-1.295	1.295	1.676	43.152%
December	4	3.259	.741	.741	.549	18.527%
TOTALS	59		-.185	23.649	66.316	493.269%
AVERAGE	4.917		-.017	2.15	6.029	44.843%
Next period forecast		3.852	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.714	

$\alpha = 0,6$

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	5.2	-.2	.2	.04	4%
April	7	5.08	1.92	1.92	3.686	27.429%
May	4	6.232	-2.232	2.232	4.982	55.8%
June	9	4.893	4.107	4.107	16.869	45.636%
July	4	7.357	-3.357	3.357	11.27	83.928%
August	3	5.343	-2.343	2.343	5.489	78.095%
September	6	3.937	2.063	2.063	4.255	34.381%
October	4	5.175	-1.175	1.175	1.38	29.371%
November	3	4.47	-1.47	1.47	2.161	48.998%
December	4	3.588	.412	.412	.17	10.301%
TOTALS	59		-.275	21.279	54.303	451.271%
AVERAGE	4.917		-.025	1.934	4.937	41.025%
Next period forecast		3.835	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.456	

$\alpha = 0,9$

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.333%
March	5	5.8	-.8	.8	.64	16%
April	7	5.08	1.92	1.92	3.686	27.429%
May	4	6.808	-2.808	2.808	7.885	70.2%
June	9	4.281	4.719	4.719	22.271	52.436%
July	4	8.528	-4.528	4.528	20.504	113.202%
August	3	4.453	-1.453	1.453	2.111	48.427%
September	6	3.145	2.855	2.855	8.149	47.579%
October	4	5.715	-1.715	1.715	2.94	42.863%
November	3	4.171	-1.171	1.171	1.372	39.048%
December	4	3.117	.883	.883	.779	22.071%
TOTALS	59		-.098	24.852	74.337	512.588%
AVERAGE	4.917		-.009	2.259	6.758	46.599%
Next period forecast		3.912	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.874	

LINIER REGRASSION



Vintolin Inhaler

4. Lipitor 10 Mg

Table for Vintolin Inhaler showing demand, time, forecast, error, and regression statistics. Includes columns like Demand(y), Time(x), x^2, x*y, Forecast, Error, |Error|, (E-Ebar)^2, |Pct Error|, and summary rows for AVERAGE, Intercept, and Slope.

Table for Lipitor 10 Mg showing demand, time, forecast, error, and regression statistics. Includes columns like Demand(y), Time(x), x^2, x*y, Forecast, Error, |Error|, (E-Ebar)^2, |Pct Error|, and summary rows for AVERAGE, Intercept, and Slope.

- 1. Diarangi mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.
a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Diarangi mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Diane

5. Pariet 10 Mg

Table for Diane showing demand, time, forecast, error, and regression statistics. Includes columns like Demand(y), Time(x), x^2, x*y, Forecast, Error, |Error|, (E-Ebar)^2, |Pct Error|, and summary rows for AVERAGE, Intercept, and Slope.

Table for Pariet 10 Mg showing demand, time, forecast, error, and regression statistics. Includes columns like Demand(y), Time(x), x^2, x*y, Forecast, Error, |Error|, (E-Ebar)^2, |Pct Error|, and summary rows for AVERAGE, Intercept, and Slope.

Nexium 40 Mg

6. Sucralfat Suspensi 500 Mg/5ml 100 MI

Table for Nexium 40 Mg showing demand, time, forecast, error, and regression statistics. Includes columns like Demand(y), Time(x), x^2, x*y, Forecast, Error, |Error|, (E-Ebar)^2, |Pct Error|, and summary rows for AVERAGE, Intercept, and Slope.

Table for Sucralfat Suspensi 500 Mg/5ml 100 MI showing demand, time, forecast, error, and regression statistics. Includes columns like Demand(y), Time(x), x^2, x*y, Forecast, Error, |Error|, (E-Ebar)^2, |Pct Error|, and summary rows for AVERAGE, Intercept, and Slope.



7. Mpepsa Sirup 100 MI

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	8	1	1	8	7.91	.09	.09	.008	1.122%
February	6	2	4	12	7.942	-1.942	1.942	3.77	32.362%
March	8	3	9	24	7.973	.027	.027	.001	.333%
April	9	4	16	36	8.005	.995	.995	.991	11.059%
May	10	5	25	50	8.036	1.964	1.964	3.857	19.639%
June	11	6	36	66	8.068	2.932	2.932	8.599	26.658%
July	5	7	49	35	8.099	-3.099	3.099	9.604	61.981%
August	8	8	64	64	8.131	-.131	.131	.017	1.632%
September	7	9	81	63	8.162	-1.162	1.162	1.35	16.6%
October	8	10	100	80	8.193	-.193	.193	.037	2.418%
November	7	11	121	77	8.225	-1.225	1.225	1.5	17.499%
December	10	12	144	120	8.256	1.744	1.744	3.04	17.436%
TOTALS	97	78	650	635		0	15.504	32.775	208.742%
AVERAGE	8.083	6.5	54.167	52.917		0	1.292	2.731	17.395%
Next period forecast					8.288	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	7.879							Std err	1.81
Slope	.031								

Depakene Sirup

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	1	1	1	1	1.333	-.333	.333	.111	33.333%
February	3	2	4	6	1.606	1.394	1.394	1.943	46.465%
March	2	3	9	6	1.879	.121	.121	.015	6.061%
April	2	4	16	8	2.152	-.152	.152	.023	7.576%
May	3	5	25	15	2.424	.576	.576	.331	19.192%
June	1	6	36	6	2.697	-1.697	1.697	2.88	169.697%
July	1	7	49	7	2.97	-1.97	1.97	3.88	196.97%
August	3	8	64	24	3.242	-.242	.242	.059	8.081%
September	5	9	81	45	3.515	1.485	1.485	2.205	29.697%
October	4	10	100	40	3.788	.212	.212	.045	5.303%
November	6	11	121	66	4.061	1.939	1.939	3.761	32.323%
December	3	12	144	36	4.333	-1.333	1.333	1.778	44.444%
TOTALS	34	78	650	260		0	11.455	17.03	599.141%
AVERAGE	2.833	6.5	54.167	21.667		0	.955	1.419	49.928%
Next period forecast					4.606	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	1.061							Std err	1.305
Slope	.273								

Mexon

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	54	1	1	54	54.667	-.667	.667	.444	1.235%
February	56	2	4	112	54.303	1.697	1.697	2.88	3.03%
March	50	3	9	150	53.939	-3.939	3.939	15.519	7.879%
April	48	4	16	192	53.576	-5.576	5.576	31.089	11.616%
May	60	5	25	300	53.212	6.788	6.788	46.075	11.313%
June	55	6	36	330	52.848	2.152	2.152	4.629	3.912%
July	53	7	49	371	52.485	.515	.515	.265	.972%
August	54	8	64	432	52.121	1.879	1.879	3.53	3.479%
September	50	9	81	450	51.758	-1.758	1.758	3.089	3.515%
October	56	10	100	560	51.394	4.606	4.606	21.216	8.225%
November	47	11	121	517	51.03	-4.03	4.03	16.243	8.575%
December	49	12	144	588	50.667	-1.667	1.667	2.778	3.401%
TOTALS	632	78	650	4056		0	35.273	147.758	67.153%
AVERAGE	52.667	6.5	54.167	338		0	2.939	12.313	5.596%
Next period forecast					50.303	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	55.03							Std err	3.844
Slope	-.364								

10. Lodia 2 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	27	1	1	27	30.218	-3.218	3.218	10.355	11.918%
February	32	2	4	64	30.33	1.67	1.67	2.789	5.219%
March	30	3	9	90	30.442	-.442	.442	.195	1.472%
April	35	4	16	140	30.554	4.446	4.446	19.77	12.704%
May	28	5	25	140	30.666	-2.666	2.666	7.105	9.52%
June	30	6	36	180	30.777	-.777	.777	.604	2.591%
July	29	7	49	203	30.889	-1.889	1.889	3.569	6.515%
August	35	8	64	280	31.001	3.999	3.999	15.991	11.425%
September	33	9	81	297	31.113	1.887	1.887	3.561	5.718%
October	30	10	100	300	31.225	-1.225	1.225	1.5	4.083%
November	32	11	121	352	31.337	.663	.663	.44	2.072%
December	29	12	144	348	31.449	-2.449	2.449	5.996	8.444%
TOTALS	370	78	650	2421		0	25.331	71.876	81.682%
AVERAGE	30.833	6.5	54.167	201.75		0	2.111	5.99	6.807%
Next period forecast					31.561	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	30.106							Std err	2.681
Slope	.112								

11. Histigo 6 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	28	1	1	28	27.679	.321	.321	.103	1.145%
February	24	2	4	48	27.889	-3.889	3.889	15.127	16.205%
March	28	3	9	84	28.099	-.099	.099	.01	.354%
April	30	4	16	120	28.309	1.691	1.691	2.86	5.637%
May	31	5	25	155	28.519	2.481	2.481	6.157	8.004%
June	29	6	36	174	28.728	-.272	.272	.074	.936%
July	30	7	49	210	28.938	1.062	1.062	1.127	3.539%
August	29	8	64	232	29.148	-.148	.148	.022	.51%
September	30	9	81	270	29.358	-.642	.642	.412	2.141%
October	28	10	100	280	29.568	-1.568	1.568	2.457	5.599%
November	30	11	121	330	29.777	-.223	.223	.05	.742%
December	29	12	144	348	29.987	-.987	.987	.975	3.404%
TOTALS	346	78	650	2279		0	13.382	29.373	48.217%
AVERAGE	28.833	6.5	54.167	189.917		0	1.115	2.448	4.018%
Next period forecast					30.197	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	27.47							Std err	1.714
Slope	.21								

12. Gramamine 50 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	20	1	1	20	21.731	-1.731	1.731	2.996	8.654%
February	22	2	4	44	21.689	.311	.311	.097	1.414%
March	19	3	9	57	21.647	-2.647	2.647	7.006	13.931%
April	25	4	16	100	21.605	3.395	3.395	11.527	13.58%
May	23	5	25	115	21.563	1.437	1.437	2.065	6.248%
June	20	6	36	120	21.521	-1.521	1.521	2.313	7.605%
July	26	7	49	182	21.479	4.521	4.521	20.439	17.388%
August	21	8	64	168	21.437	-.437	.437	.191	2.081%
September	17	9	81	153	21.395	-4.395	4.395	19.317	25.854%
October	24	10	100	240	21.353	2.647	2.647	7.006	11.029%
November	20	11	121	220	21.311	-1.311	1.311	1.719	6.556%
December	21	12	144	252	21.269	-.269	.269	.072	1.282%
TOTALS	258	78	650	1671		0	24.622	74.748	115.622%
AVERAGE	21.5	6.5	54.167	139.25		0	2.052	6.229	9.635%
Next period forecast					21.227	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	21.773							Std err	2.734
Slope	-.042								

1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.
- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Riau



Lapibal 500 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	12	1	1	12	13.282	-1.282	1.282	1.644	10.684%
February	15	2	4	30	13.307	1.693	1.693	2.868	11.29%
March	13	3	9	39	13.331	-3.31	3.31	.11	2.546%
April	14	4	16	56	13.355	.645	.645	.415	4.604%
May	13	5	25	65	13.38	-.38	.38	.144	2.923%
June	15	6	36	90	13.404	1.596	1.596	2.546	10.637%
July	13	7	49	91	13.429	-4.29	4.29	.184	3.299%
August	12	8	64	96	13.453	-1.453	1.453	2.112	12.112%
September	13	9	81	117	13.478	-.478	.478	.228	3.676%
October	12	10	100	120	13.502	-1.502	1.502	2.257	12.519%
November	14	11	121	154	13.527	.473	.473	.224	3.38%
December	15	12	144	180	13.551	1.449	1.449	2.099	9.658%
TOTALS	161	78	650	1050		0	11.711	14.831	87.327%
AVERAGE	13.417	6.5	54.167	87.5		0	.976	1.236	7.277%
Next period forecast					13.576	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	13.258						Std err	1.218	
Slope	.024								

Imodium

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	2	1	1	2	3.885	-1.885	1.885	3.552	94.231%
February	5	2	4	10	3.906	1.094	1.094	1.198	21.888%
March	4	3	9	12	3.927	.073	.073	.065	1.836%
April	7	4	16	28	3.948	3.052	3.052	9.317	43.606%
May	2	5	25	10	3.969	-1.969	1.969	3.875	98.427%
June	1	6	36	6	3.99	-2.99	2.99	8.937	298.951%
July	3	7	49	21	4.01	-1.01	1.01	1.021	33.683%
August	6	8	64	48	4.031	1.969	1.969	3.875	32.809%
September	9	9	81	81	4.052	4.948	4.948	24.478	54.973%
October	4	10	100	40	4.073	-.073	.073	.065	1.836%
November	3	11	121	33	4.094	-1.094	1.094	1.198	36.48%
December	2	12	144	24	4.115	-2.115	2.115	4.475	105.769%
TOTALS	48	78	650	315	0	22.273	61.937	824.488%	
AVERAGE	4	6.5	54.167	26.25	0	1.856	5.161	68.707%	
Next period forecast					4.136	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	3.864						Std err	2.489	
Slope	.021								

Myonal

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	2	1	1	2	3.051	-1.051	1.051	1.105	52.564%
February	4	2	4	8	3.254	.746	.746	.556	18.648%
March	3	3	9	9	3.457	-.457	.457	.209	15.229%
April	4	4	16	16	3.66	.34	.34	.116	8.508%
May	3	5	25	15	3.862	-.862	.862	.744	28.749%
June	6	6	36	36	4.065	1.935	1.935	3.743	32.246%
July	5	7	49	35	4.268	.732	.732	.536	14.639%
August	3	8	64	24	4.471	-1.471	1.471	2.163	49.029%
September	4	9	81	36	4.674	-.674	.674	.454	16.841%
October	6	10	100	60	4.876	1.124	1.124	1.262	18.726%
November	7	11	121	77	5.079	1.921	1.921	3.689	27.439%
December	3	12	144	36	5.282	-2.282	2.282	5.208	76.068%
TOTALS	50	78	650	354	0	13.594	19.786	358.686%	
AVERAGE	4.167	6.5	54.167	29.5	0	1.133	1.649	29.891%	
Next period forecast					5.485	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	2.848						Std err	1.407	
Slope	.203								

16. Pregabalin 75 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	6	1	1	6	6.179	-.179	.179	.032	2.991%
February	5	2	4	10	6.298	-1.298	1.298	1.686	25.967%
March	8	3	9	24	6.417	1.583	1.583	2.505	19.784%
April	5	4	16	20	6.536	-1.536	1.536	2.36	30.723%
May	8	5	25	40	6.655	1.345	1.345	1.809	16.812%
June	10	6	36	60	6.774	3.226	3.226	10.408	32.261%
July	4	7	49	28	6.893	-2.893	2.893	8.368	72.319%
August	6	8	64	48	7.012	-1.012	1.012	1.023	16.861%
September	7	9	81	63	7.131	-.131	.131	.017	1.865%
October	8	10	100	80	7.249	.751	.751	.563	9.382%
November	9	11	121	99	7.368	1.632	1.632	2.662	18.13%
December	6	12	144	72	7.487	-1.487	1.487	2.212	24.786%
TOTALS	82	78	650	550	0	17.072	33.646	271.883%	
AVERAGE	6.833	6.5	54.167	45.833	0	1.423	2.804	22.657%	
Next period forecast					7.606	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	6.061						Std err	1.834	
Slope	.119								

17. Alofar 100 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	44	1	1	44	43.5	.5	.5	.25	1.136%
February	40	2	4	80	43.545	-3.545	3.545	12.57	8.864%
March	45	3	9	135	43.591	1.409	1.409	1.986	3.131%
April	42	4	16	168	43.636	-1.636	1.636	2.678	3.896%
May	44	5	25	220	43.682	.318	.318	.101	.723%
June	50	6	36	300	43.727	6.273	6.273	39.347	12.545%
July	48	7	49	336	43.773	4.227	4.227	17.87	8.807%
August	39	8	64	312	43.818	-4.818	4.818	23.215	12.354%
September	40	9	81	360	43.864	-3.864	3.864	14.928	9.659%
October	43	10	100	430	43.909	-.909	.909	.826	2.114%
November	46	11	121	506	43.955	2.045	2.045	4.184	4.447%
December	44	12	144	528	44	0	0	0	0%
TOTALS	525	78	650	3419	0	29.545	117.955	67.677%	
AVERAGE	43.75	6.5	54.167	284.917	0	2.462	9.83	5.64%	
Next period forecast					44.045	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	43.455						Std err	3.434	
Slope	.045								

18. Rhinofed

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	9	1	1	9	10.013	-1.013	1.013	1.026	11.254%
February	11	2	4	22	9.859	1.141	1.141	1.302	10.373%
March	9	3	9	27	9.705	-.705	.705	.497	7.835%
April	10	4	16	40	9.551	.449	.449	.201	4.487%
May	8	5	25	40	9.397	-1.397	1.397	1.953	17.468%
June	9	6	36	54	9.244	-.244	.244	.059	2.707%
July	10	7	49	70	9.09	.91	.91	.829	9.103%
August	12	8	64	96	8.936	3.064	3.064	9.389	25.534%
September	9	9	81	81	8.782	.218	.218	.048	2.422%
October	8	10	100	80	8.628	-.628	.628	.395	7.853%
November	6	11	121	66	8.474	-2.474	2.474	6.122	41.239%
December	9	12	144	108	8.321	.679	.679	.462	7.55%
TOTALS	110	78	650	693	0	12.923	22.282	147.823%	
AVERAGE	9.167	6.5	54.167	57.75	0	1.077	1.857	12.319%	
Next period forecast					8.167	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	10.167						Std err	1.493	
Slope	-.154								

1. Di larang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusutan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Di larang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Tarivid Otic Sol

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	2	1	1	2	1	1	1	1	50%
February	3	2	4	6	1.545	1.455	1.455	2.116	48.485%
March	1	3	9	3	2.091	-1.091	1.091	1.19	109.091%
April	1	4	16	4	2.636	-1.636	1.636	2.678	163.636%
May	3	5	25	15	3.182	-.182	.182	.033	6.061%
June	6	6	36	36	3.727	2.273	2.273	5.165	37.879%
July	5	7	49	35	4.273	.727	.727	.529	14.545%
August	3	8	64	24	4.818	-1.818	1.818	3.306	60.606%
September	2	9	81	18	5.364	-3.364	3.364	11.314	168.182%
October	5	10	100	50	5.909	-.909	.909	.826	18.182%
November	7	11	121	77	6.455	.545	.545	.298	7.792%
December	10	12	144	120	7	3	3	9	30%
TOTALS	48	78	650	390		0	18	37.455	714.459%
AVERAGE	4	6.5	54.167	32.5		0	1.5	3.121	59.538%
Next period forecast					7.545	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	.455							Std err	1.955
Slope	.545								

Akilon (Tetes Telinga)

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	6	1	1	6	5.346	.654	.654	.428	10.897%
February	8	2	4	16	5.556	2.444	2.444	5.973	30.551%
March	5	3	9	15	5.766	-.766	.766	.586	15.315%
April	6	4	16	24	5.976	.024	.024	.001	.408%
May	4	5	25	20	6.185	-2.185	2.185	4.776	54.633%
June	5	6	36	30	6.395	-1.395	1.395	1.946	27.902%
July	7	7	49	49	6.605	.395	.395	.156	5.644%
August	3	8	64	24	6.815	-3.815	3.815	14.552	127.156%
September	10	9	81	90	7.024	2.976	2.976	8.854	29.755%
October	9	10	100	90	7.234	1.766	1.766	3.118	19.619%
November	7	11	121	77	7.444	-.444	.444	.197	6.344%
December	8	12	144	96	7.654	.346	.346	.12	4.327%
TOTALS	78	78	650	537		0	17.21	40.706	332.551%
AVERAGE	6.5	6.5	54.167	44.75		0	1.434	3.392	27.713%
Next period forecast					7.864	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	5.136							Std err	2.018
Slope	.71								

Fg Troces

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	26	1	1	26	24.679	1.321	1.321	1.744	5.079%
February	24	2	4	48	24.617	-.617	.617	.38	2.569%
March	25	3	9	75	24.554	.446	.446	.199	1.786%
April	20	4	16	80	24.491	-4.491	4.491	20.166	22.453%
May	26	5	25	130	24.428	1.572	1.572	2.472	6.047%
June	27	6	36	162	24.365	2.635	2.635	6.944	9.76%
July	26	7	49	182	24.302	1.698	1.698	2.884	6.531%
August	25	8	64	200	24.239	.761	.761	.579	3.044%
September	20	9	81	180	24.176	-4.176	4.176	17.439	20.88%
October	23	10	100	230	24.113	-1.113	1.113	1.239	4.839%
November	24	11	121	264	24.05	-.05	.05	.003	.209%
December	26	12	144	312	23.987	2.013	2.013	4.051	7.742%
TOTALS	292	78	650	1889		0	20.893	58.1	90.939%
AVERAGE	24.333	6.5	54.167	157.417		0	1.741	4.842	7.578%
Next period forecast					23.924	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	24.742							Std err	2.41
Slope	-.063								

22. Kandistatin Drops

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	6	1	1	6	6.872	-.872	.872	.76	14.53%
February	5	2	4	10	6.683	-1.683	1.683	2.832	33.66%
March	7	3	9	21	6.494	.506	.506	.256	7.226%
April	6	4	16	24	6.305	-.305	.305	.093	5.089%
May	10	5	25	50	6.117	3.883	3.883	15.081	38.835%
June	8	6	36	48	5.928	2.072	2.072	4.294	25.903%
July	4	7	49	28	5.739	-1.739	1.739	3.024	43.473%
August	6	8	64	48	5.55	.45	.45	.202	7.498%
September	3	9	81	27	5.361	-2.361	2.361	5.576	78.71%
October	5	10	100	50	5.172	-.172	.172	.03	3.45%
November	4	11	121	44	4.984	-.984	.984	.968	24.592%
December	6	12	144	72	4.795	1.205	1.205	1.452	20.085%
TOTALS	70	78	650	428		0	16.233	34.569	303.052%
AVERAGE	5.833	6.5	54.167	35.667		0	1.353	2.881	25.254%
Next period forecast					4.606	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	7.061							Std err	1.859
Slope	-.189								

23. Fitaquin Cream

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	4	1	1	4	5.974	-1.974	1.974	3.898	49.359%
February	5	2	4	10	5.782	-.782	.782	.612	15.641%
March	4	3	9	12	5.59	-1.59	1.59	2.527	39.744%
April	6	4	16	24	5.397	.603	.603	.363	10.043%
May	8	5	25	40	5.205	2.795	2.795	7.811	34.936%
June	5	6	36	30	5.013	-.013	.013	.0	.256%
July	7	7	49	49	4.821	2.179	2.179	4.75	31.136%
August	10	8	64	80	4.628	5.372	5.372	28.856	53.718%
September	3	9	81	27	4.436	-1.436	1.436	2.062	47.863%
October	1	10	100	10	4.244	-3.244	3.244	10.521	324.359%
November	2	11	121	22	4.051	-2.051	2.051	4.208	102.564%
December	4	12	144	48	3.859	.141	.141	.02	3.526%
TOTALS	59	78	650	356		0	22.179	65.628	713.144%
AVERAGE	4.917	6.5	54.167	29.667		0	1.848	5.469	59.429%
Next period forecast					3.667	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	6.167							Std err	2.562
Slope	-.192								

24. Dobrizon

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pct Error
January	7	1	1	7	8.385	-1.385	1.385	1.917	19.78%
February	12	2	4	24	9.087	2.913	2.913	8.483	24.272%
March	9	3	9	27	9.79	-.79	.79	.624	8.78%
April	10	4	16	40	10.493	-.493	.493	.243	4.93%
May	13	5	25	65	11.196	1.804	1.804	3.255	13.878%
June	8	6	36	48	11.899	-3.899	3.899	15.199	48.733%
July	15	7	49	105	12.601	2.399	2.399	5.753	15.991%
August	11	8	64	88	13.304	-2.304	2.304	5.309	20.947%
September	14	9	81	126	14.007	-.007	.007	.0	.05%
October	17	10	100	170	14.71	2.29	2.29	5.245	13.472%
November	16	11	121	176	15.413	-.587	.587	.345	3.671%
December	15	12	144	180	16.115	-1.115	1.115	1.244	7.436%
TOTALS	147	78	650	1056		0	19.986	47.619	181.94%
AVERAGE	12.25	6.5	54.167	88		0	1.666	3.968	15.162%
Next period forecast					16.818	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	7.682							Std err	2.182
Slope	.703								

- 1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.
- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
- 2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



- 1. Diarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.
- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
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Burnazin Cream

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error ²	(E-Ebar) ²	Pct Error
January	5	1	1	5	4.936	.064	.064	.004	1.282%
February	6	2	4	12	4.751	1.249	1.249	1.561	20.824%
March	4	3	9	12	4.565	-.565	.565	.32	14.132%
April	5	4	16	20	4.38	.62	.62	.384	12.401%
May	3	5	25	15	4.195	-1.195	1.195	1.427	39.821%
June	2	6	36	12	4.009	-2.009	2.009	4.037	100.466%
July	5	7	49	35	3.824	1.176	1.176	1.383	23.52%
August	4	8	64	32	3.639	.361	.361	.131	9.033%
September	3	9	81	27	3.453	-.453	.453	.206	15.113%
October	3	10	100	30	3.268	-.268	.268	.072	8.936%
November	5	11	121	55	3.083	1.917	1.917	3.676	38.345%
December	2	12	144	24	2.897	-.897	.897	.805	44.872%
TOTALS	47	78	650	279		0	10.776	14.006	328.743%
AVERAGE	3.917	6.5	54.167	23.25			.898	1.167	27.395%
Next period forecast					2.712	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	5.121						Std err	1.183	
Slope	-.185								

Concor 2,5 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error ²	(E-Ebar) ²	Pct Error	
January	3	1	1	3	4.269	-1.269	1.269	1.611	42.308%	
February	4	2	4	8	4.357	-.357	.357	.127	8.916%	
March	5	3	9	15	4.444	.556	.556	.309	11.119%	
April	7	4	16	28	4.531	2.469	2.469	6.094	35.265%	
May	2	5	25	10	4.619	-2.619	2.619	6.859	130.944%	
June	5	6	36	30	4.706	.294	.086	.294	5.874%	
July	3	7	49	21	4.794	-1.794	1.794	3.217	59.79%	
August	8	8	64	64	4.881	3.119	3.119	9.727	38.986%	
September	7	9	81	63	4.969	2.031	2.031	4.127	29.021%	
October	4	10	100	40	5.056	-1.056	1.056	1.115	26.399%	
November	7	11	121	77	5.143	1.857	1.857	3.447	26.523%	
December	2	12	144	24	5.231	-3.231	3.231	10.438	161.539%	
TOTALS	57	78	650	383		0	20.65	47.157	576.683%	
AVERAGE	4.75	6.5	54.167	31.917			0	1.721	3.93	48.057%
Next period forecast					5.318	(Bias)	(MAD)	(MSE)	(MAPE)	
Intercept	4.182						Std err	2.172		
Slope	.087									

Mucoppect 15 Mg/5ml

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error ²	(E-Ebar) ²	Pct Error	
January	2	1	1	2	4.628	-2.628	2.628	6.907	131.41%	
February	3	2	4	6	4.544	-1.544	1.544	2.385	51.476%	
March	5	3	9	15	4.46	.54	.54	.291	10.793%	
April	4	4	16	16	4.376	-.376	.376	.142	9.411%	
May	8	5	25	40	4.293	3.707	3.707	13.745	46.343%	
June	5	6	36	30	4.209	.791	.791	.626	15.828%	
July	8	7	49	56	4.125	3.875	3.875	15.018	48.441%	
August	4	8	64	32	4.041	-.041	.041	.002	1.02%	
September	2	9	81	18	3.957	-1.957	1.957	3.829	97.844%	
October	3	10	100	30	3.873	-.873	.873	.762	29.099%	
November	4	11	121	44	3.789	.211	.211	.045	5.274%	
December	2	12	144	24	3.705	-1.705	1.705	2.907	85.256%	
TOTALS	50	78	650	313		0	18.249	46.66	532.195%	
AVERAGE	4.167	6.5	54.167	26.083			0	1.521	3.888	44.35%
Next period forecast					3.621	(Bias)	(MAD)	(MSE)	(MAPE)	
Intercept	4.712						Std err	2.16		
Slope	-.084									

28. Lerzin Drops 15 ml

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error ²	(E-Ebar) ²	Pct Error	
January	8	1	1	8	7.205	.795	.795	.632	9.936%	
February	7	2	4	14	7.425	-.425	.425	.181	6.077%	
March	9	3	9	27	7.646	1.354	1.354	1.834	15.048%	
April	7	4	16	28	7.866	-.866	.866	.75	12.371%	
May	8	5	25	40	8.086	-.086	.086	.007	1.078%	
June	6	6	36	36	8.307	-2.307	2.307	5.32	38.442%	
July	8	7	49	56	8.527	-.527	.527	.278	6.583%	
August	10	8	64	80	8.747	1.253	1.253	1.57	12.529%	
September	9	9	81	81	8.967	.033	.033	.001	.363%	
October	11	10	100	110	9.188	1.812	1.812	3.285	16.476%	
November	8	11	121	88	9.408	-1.408	1.408	1.982	17.599%	
December	10	12	144	120	9.628	-.372	.372	.138	3.718%	
TOTALS	101	78	650	688		0	11.238	15.978	140.222%	
AVERAGE	8.417	6.5	54.167	57.333			0	.936	1.331	11.685%
Next period forecast					9.848	(Bias)	(MAD)	(MSE)	(MAPE)	
Intercept	6.985						Std err	1.264		
Slope	.22									

29. Lameson 8 Mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error ²	(E-Ebar) ²	Pct Error	
January	4	1	1	4	5.064	-1.064	1.064	1.132	26.603%	
February	6	2	4	12	4.886	1.114	1.114	1.241	18.57%	
March	5	3	9	15	4.707	-.293	.293	.086	5.851%	
April	4	4	16	16	4.529	-.529	.529	.28	13.228%	
May	3	5	25	15	4.351	-1.351	1.351	1.825	45.027%	
June	5	6	36	30	4.172	.828	.828	.685	16.55%	
July	6	7	49	42	3.994	2.006	2.006	4.023	33.43%	
August	4	8	64	32	3.816	.184	.184	.034	4.604%	
September	3	9	81	27	3.638	-.638	.638	.406	21.251%	
October	2	10	100	20	3.459	-1.459	1.459	2.129	72.96%	
November	4	11	121	44	3.281	.719	.719	.517	17.978%	
December	3	12	144	36	3.103	-.103	.103	.011	3.419%	
TOTALS	49	78	650	293		0	10.287	12.369	279.472%	
AVERAGE	4.083	6.5	54.167	24.417			0	.857	1.031	23.289%
Next period forecast					2.924	(Bias)	(MAD)	(MSE)	(MAPE)	
Intercept	5.242						Std err	1.112		
Slope	-.178									

30. Phenytoin 100 Mg Capsule

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error ²	(E-Ebar) ²	Pct Error	
January	4	1	1	4	4.679	-.679	.679	.462	16.987%	
February	5	2	4	10	4.662	-.338	.338	.114	6.76%	
March	4	3	9	12	4.645	-.645	.645	.415	16.113%	
April	3	4	16	12	4.627	-1.627	1.627	2.647	54.235%	
May	6	5	25	30	4.61	1.39	1.39	1.933	23.174%	
June	4	6	36	24	4.592	-.592	.592	.351	14.802%	
July	7	7	49	49	4.575	2.425	2.425	5.883	34.649%	
August	3	8	64	24	4.557	-1.557	1.557	2.425	51.904%	
September	10	9	81	90	4.54	5.46	5.46	29.816	54.604%	
October	3	10	100	30	4.522	-1.522	1.522	2.317	50.738%	
November	2	11	121	22	4.505	-2.505	2.505	6.273	125.233%	
December	4	12	144	48	4.487	-.487	.487	.237	12.179%	
TOTALS	55	78	650	355		0	19.228	52.873	461.378%	
AVERAGE	4.583	6.5	54.167	29.583			0	1.602	4.406	38.448%
Next period forecast					4.47	(Bias)	(MAD)	(MSE)	(MAPE)	
Intercept	4.697						Std err	2.299		
Slope	-.017									



Ryvel Sirup

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	(E-Ebar) ²	Pet Error
January	4	1	1	4	5.821	-1.821	1.821	3.314	45.513%
February	6	2	4	12	5.656	-.344	.344	.118	5.73%
March	5	3	9	15	5.492	-.492	.492	.242	9.837%
April	7	4	16	28	5.328	1.672	1.672	2.797	23.893%
May	4	5	25	20	5.163	-1.163	1.163	1.353	29.079%
June	9	6	36	54	4.999	4.001	4.001	16.009	44.457%
July	4	7	49	28	4.834	-.834	.834	.696	20.862%
August	3	8	64	24	4.67	-1.67	1.67	2.789	55.672%
September	6	9	81	54	4.506	1.494	1.494	2.233	24.903%
October	4	10	100	40	4.341	-.341	.341	.117	8.537%
November	3	11	121	33	4.177	-1.177	1.177	1.386	39.239%
December	4	12	144	48	4.013	-.013	.013	.0	.321%
TOTALS	59	78	650	360		0	15.023	31.055	308.043%
AVERAGE	4.917	6.5	54.167	30		0	1.252	2.588	25.67%
Next period forecast					3.848	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	5.983						Std err	1.762	
Slope	-.164								

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Perhitungan *Forecast Metode Terpilih*

Perhitungan *forecasting* obat paten jenis A:

Ventolin Inhaler (*Moving Average n=8*)

$$\begin{aligned} F_{\text{Januari}} &= \frac{\sum x_i}{n} \\ &= \frac{21+26+23+25+20+24+22+20}{8} \\ &= 22.625 \end{aligned}$$

$$\begin{aligned} F_{\text{Februari}} &= \frac{\sum x_i}{n} \\ &= \frac{22.625+21+26+23+25+20+24+22}{8} \\ &= 22.953 \end{aligned}$$

$$\begin{aligned} F_{\text{Maret}} &= \frac{\sum x_i}{n} \\ &= \frac{22.953+22.625+21+26+23+25+20+24}{8} \\ &= 23.072 \end{aligned}$$

$$\begin{aligned} F_{\text{April}} &= \frac{\sum x_i}{n} \\ &= \frac{23.072+22.953+22.625+21+26+23+25+20}{8} \\ &= 22.956 \end{aligned}$$

$$\begin{aligned} F_{\text{Mei}} &= \frac{\sum x_i}{n} \\ &= \frac{22.956+23.072+22.953+22.625+21+26+23+25}{8} \\ &= 23.325 \end{aligned}$$

$$\begin{aligned} F_{\text{Juni}} &= \frac{\sum x_i}{n} \\ &= \frac{23.325+22.956+23.072+22.953+22.625+21+26+23}{8} \\ &= 23.116 \end{aligned}$$

$$\begin{aligned} F_{\text{Juli}} &= \frac{\sum x_i}{n} \\ &= \frac{23.116+23.325+22.956+23.072+22.953+22.625+21+26}{8} \\ &= 23.131 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{23.131+23.116+23.325+22.956+23.072+22.953+22.625+21}{8} \\
 &= 22.772 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{22.772+23.131+23.116+23.325+22.956+23.072+22.953+22.625}{8} \\
 &= 22.994 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{22.994+22.772+23.131+23.116+23.325+22.956+23.072+22.953}{8} \\
 &= 23.040 \\
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{23.040+22.994+22.772+23.131+23.116+23.325+22.956+23.072}{8} \\
 &= 23.051 \\
 F_{\text{Desember}} &= \frac{\sum x_i}{n} \\
 &= \frac{23.051+23.040+22.994+22.772+23.131+23.116+23.325+22.956}{8} \\
 &= 23.048
 \end{aligned}$$

Diane (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	6.909
Bias (Mean Error)	0	14	6.741
MAD (Mean Absolute Deviation)	1.361	15	6.573
MSE (Mean Squared Error)	2.998	16	6.406
Standard Error (denom=n-2=10)	1.897	17	6.238
MAPE (Mean Absolute Percent Error)	19.669%	18	6.07
Regression line		19	5.902
Demand(y) = 9.091		20	5.734
-.168 * Time(x)		21	5.566
Statistics		22	5.399
Correlation coefficient	-.317	23	5.231
Coefficient of determination (r ²)	.101	24	5.063



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Perhitungan *Forecast* Metode Terpilih3. Nexium 40 Mg (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	6.939
Bias (Mean Error)	0	14	7.058
MAD (Mean Absolute Deviation)	.895	15	7.177
MSE (Mean Squared Error)	1.137	16	7.296
Standard Error (denom=n-2=10)	1.168	17	7.415
MAPE (Mean Absolute Percent Error)	15.526%	18	7.534
Regression line		19	7.653
Demand(y) = 5.394		20	7.772
+ .119 * Time(x)		21	7.89
Statistics		22	8.009
Correlation coefficient	.359	23	8.128
Coefficient of determination (r ²)	.129	24	8.247

Lipitor 10 Mg (*Weight Moving Average n=10*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(3 \times 1) + (1 \times 2) + (4 \times 3) + \dots + (3 \times 10)}{55} \\
 &= 3.527
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(1 \times 1) + (4 \times 2) + (5 \times 3) + \dots + (3.527 \times 10)}{55} \\
 &= 3.532
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(4 \times 1) + (5 \times 2) + (6 \times 3) + \dots + (3.532 \times 10)}{55} \\
 &= 3.528
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(5 \times 1) + (6 \times 2) + (4 \times 3) + \dots + (3.528 \times 10)}{55} \\
 &= 3.478
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(6 \times 1) + (4 \times 2) + (3 \times 3) + \dots + (3.478 \times 10)}{55} \\
 &= 3.427
 \end{aligned}$$

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Perhitungan *Forecast Metode Terpilih*

$$\begin{aligned}
 F_{\text{Juni}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(4 \times 1) + (3 \times 2) + (2 \times 3) + \dots + (3.427 \times 10)}{55} \\
 &= 3.3943 \\
 F_{\text{Juli}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(3 \times 1) + (2 \times 2) + (4 \times 3) + \dots + (3.3943 \times 10)}{55} \\
 &= 3.402 \\
 F_{\text{Agustus}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(2 \times 1) + (4 \times 2) + (3 \times 3) + \dots + (3.402 \times 10)}{55} \\
 &= 3.423 \\
 F_{\text{September}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(4 \times 1) + (3 \times 2) + (3.527 \times 3) + \dots + (3.423 \times 10)}{55} \\
 &= 3.440 \\
 F_{\text{Oktober}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(3 \times 1) + (3.527 \times 2) + (3.532 \times 3) + \dots + (3.440 \times 10)}{55} \\
 &= 3.434 \\
 F_{\text{November}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(3.527 \times 1) + (3.532 \times 2) + (3.528 \times 3) + \dots + (3.434 \times 10)}{55} \\
 &= 3.438 \\
 F_{\text{Desember}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(3.532 \times 1) + (3.528 \times 2) + (3.478 \times 3) + \dots + (3.438 \times 10)}{55} \\
 &= 3.434
 \end{aligned}$$

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Perhitungan *Forecast* Metode TerpilihPariet 10 Mg (*Exponential Smoothing* $\alpha = 0,1$)

$$\begin{aligned} F_{\text{Januari}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Februari}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Maret}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{April}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Mei}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Juni}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Juli}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Agustus}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{September}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Oktober}} &= \alpha A_{t-1} + (1 - \alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned} F_{\text{November}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} F_{\text{Desember}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0.1(2) + (1-0.1)2 \\ &= 2 \end{aligned}$$

Sucralfat Suspensi 500 Mg (*Weight Moving Average* n=9)

$$\begin{aligned} F_{\text{Januari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\ &= \frac{(42 \times 1) + (40 \times 2) + (43 \times 3) + \dots + (40 \times 9)}{45} \\ &= 39.955 \end{aligned}$$

$$\begin{aligned} F_{\text{Februari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\ &= \frac{(40 \times 1) + (43 \times 2) + (42 \times 3) + \dots + (39.955 \times 9)}{45} \\ &= 39.88 \end{aligned}$$

$$\begin{aligned} F_{\text{Maret}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\ &= \frac{(43 \times 1) + (42 \times 2) + (39 \times 3) + \dots + (39.88 \times 9)}{45} \\ &= 39.834 \end{aligned}$$

$$\begin{aligned} F_{\text{April}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\ &= \frac{(42 \times 1) + (39 \times 2) + (36 \times 3) + \dots + (39.834 \times 9)}{45} \\ &= 39.783 \end{aligned}$$

$$\begin{aligned} F_{\text{Mei}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\ &= \frac{(39 \times 1) + (36 \times 2) + (40 \times 3) + \dots + (39.783 \times 9)}{45} \\ &= 39.791 \end{aligned}$$

$$F_{\text{Juni}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

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Perhitungan *Forecast Metode Terpilih*

$$= \frac{(36 \times 1) + (40 \times 2) + (41 \times 3) + \dots + (39.791 \times 9)}{45}$$

$$= 39.850$$

$$F_{\text{Juli}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

$$= \frac{(40 \times 1) + (41 \times 2) + (40 \times 3) + \dots + (39.850 \times 9)}{45}$$

$$= 39.904$$

$$F_{\text{Agustus}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

$$= \frac{(41 \times 1) + (40 \times 2) + (39.955 \times 3) + \dots + (39.904 \times 9)}{45}$$

$$= 39.883$$

$$F_{\text{September}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

$$= \frac{(40 \times 1) + (39.955 \times 2) + (39.88 \times 3) + \dots + (39.883 \times 9)}{45}$$

$$= 39.859$$

$$F_{\text{Oktober}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

$$= \frac{(39.955 \times 1) + (39.88 \times 2) + (39.834 \times 3) + \dots + (39.859 \times 9)}{45}$$

$$= 39.856$$

$$F_{\text{November}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

$$= \frac{(39.88 \times 1) + (39.783 \times 2) + (39.791 \times 3) + \dots + (39.856 \times 9)}{45}$$

$$= 39.856$$

$$F_{\text{Desember}} = \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}}$$

$$= \frac{(39.783 \times 1) + (39.791 \times 2) + (39.850 \times 3) + \dots + (39.856 \times 9)}{45}$$

$$= 39.857$$

Inpepsa Sirup 100 Ml (*Moving Average n=9*)

$$F_{\text{Januari}} = \frac{\sum x_i}{n}$$

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Perhitungan *Forecast* Metode Terpilih

$$= \frac{10+7+8+7+8+5+11+10+9}{9}$$

$$= 8.333$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n} = \frac{8.333+10+7+8+7+8+5+11+10}{9}$$

$$= 8.259$$

$$F_{\text{Maret}} = \frac{\sum x_i}{n} = \frac{8.259+8.333+10+7+8+7+8+5+11}{9}$$

$$= 8.065$$

$$F_{\text{April}} = \frac{\sum x_i}{n} = \frac{8.065+8.259+8.333+10+7+8+7+8+5}{9}$$

$$= 7.739$$

$$F_{\text{Mei}} = \frac{\sum x_i}{n} = \frac{7.739+8.065+8.259+8.333+10+7+8+7+8}{9}$$

$$= 8.044$$

$$F_{\text{Juni}} = \frac{\sum x_i}{n} = \frac{8.044+7.739+8.065+8.259+8.333+10+7+8+7}{9}$$

$$= 8.049$$

$$F_{\text{Juli}} = \frac{\sum x_i}{n} = \frac{8.049+8.044+7.739+8.065+8.259+8.333+10+7+8}{9}$$

$$= 8.165$$

$$F_{\text{Agustus}} = \frac{\sum x_i}{n} = \frac{8.165+8.049+8.044+7.739+8.065+8.259+8.333+10+7}{9}$$

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Perhitungan *Forecast Metode Terpilih*

$$\begin{aligned}
 &= 8.184 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.814+8.165+8.049+8.044+7.739+8.065+8.259+8.333+10}{9}
 \end{aligned}$$

$$\begin{aligned}
 &= 8.315 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.315+8.814+8.165+8.049+8.044+7.739+8.065+8.259+8.333}{9}
 \end{aligned}$$

$$\begin{aligned}
 &= 8.128 \\
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.128+8.315+8.814+8.165+8.049+8.044+7.739+8.065+8.259}{9}
 \end{aligned}$$

$$\begin{aligned}
 &= 8.105 \\
 F_{\text{Desember}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.105+8.128+8.315+8.814+8.165+8.049+8.044+7.739+8.065}{9}
 \end{aligned}$$

$$= 8.088$$

8. Depakene Sirup (*Moving Average n=10*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{3+6+4+5+3+1+1+3+2+2}{10}
 \end{aligned}$$

$$= 3$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{3+3+6+4+5+3+1+1+3+2}{10}
 \end{aligned}$$

$$= 3.1$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.1+3+3+6+4+5+3+1+1+3}{10}
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 &= 3.21 \\
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.21+3.1+3+3+6+4+5+3+1+1}{10}
 \end{aligned}$$

$$\begin{aligned}
 &= 3.231 \\
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.231+3.21+3.1+3+3+6+4+5+3+1}{10}
 \end{aligned}$$

$$\begin{aligned}
 &= 3.454 \\
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.454+3.231+3.21+3.1+3+3+6+4+5+3}{10}
 \end{aligned}$$

$$\begin{aligned}
 &= 3.699 \\
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.699+3.454+3.231+3.21+3.1+3+3+6+4+5}{10}
 \end{aligned}$$

$$\begin{aligned}
 &= 3.769 \\
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.769+3.699+3.454+3.231+3.21+3.1+3+3+6+4}{10}
 \end{aligned}$$

$$\begin{aligned}
 &= 3.646 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.646+3.769+3.699+3.454+3.231+3.21+3.1+3+3+6}{10}
 \end{aligned}$$

$$\begin{aligned}
 &= 3.611 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.611+3.646+3.769+3.699+3.454+3.231+3.21+3.1+3+3}{10}
 \end{aligned}$$

$$= 3.372$$

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Perhitungan *Forecast* Metode Terpilih

$$F_{\text{November}} = \frac{\sum x_i}{n}$$

$$= \frac{3.372+3.611+3.646+3.769+3.699+3.454+3.231+3.21+3.1+3}{10}$$

$$= 3.409$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n}$$

$$= \frac{3.409+3.372+3.611+3.646+3.769+3.699+3.454+3.231+3.21+3.1}{10}$$

$$= 3.450$$

Mexon (*Moving Average* n=5)

$$F_{\text{Januari}} = \frac{\sum x_i}{n}$$

$$= \frac{49+47+56+50+54}{5}$$

$$= 51.2$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n}$$

$$= \frac{51.2+49+47+56+50}{5}$$

$$= 50.64$$

$$F_{\text{Maret}} = \frac{\sum x_i}{n}$$

$$= \frac{50.64+51.2+49+47+56}{5}$$

$$= 50.768$$

$$F_{\text{April}} = \frac{\sum x_i}{n}$$

$$= \frac{50.768+50.64+51.2+49+47}{5}$$

$$= 49.721$$

$$F_{\text{Mei}} = \frac{\sum x_i}{n}$$

$$= \frac{49.721+50.768+50.64+51.2+49}{5}$$

$$= 50.265$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.265+49.721+50.768+50.64+51.2}{5} \\
 &= 50.519 \\
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.519+50.265+49.721+50.768+50.64}{5} \\
 &= 50.382 \\
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.382+50.519+50.265+49.721+50.768}{5} \\
 &= 50.331 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.331+50.382+50.519+50.265+49.721}{5} \\
 &= 50.244 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.244+50.331+50.382+50.519+50.265}{5} \\
 &= 50.348 \\
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.348+50.244+50.331+50.382+50.519}{5} \\
 &= 50.365 \\
 F_{\text{Desember}} &= \frac{\sum x_i}{n} \\
 &= \frac{50.365+50.348+50.244+50.331+50.382}{5} \\
 &= 50.334
 \end{aligned}$$

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Perhitungan *Forecast Metode Terpilih*10. Lodia 2 Mg (*Moving Average n=9*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{29+32+30+33+35+29+30+28+35}{9} \\
 &= 31.222
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.222+29+32+30+33+35+29+30+28}{9} \\
 &= 30.802
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{30.802+31.222+29+32+30+33+35+29+30}{9} \\
 &= 31.113
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.113+30.802+31.222+29+32+30+33+35+29}{9} \\
 &= 31.237
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.237+31.113+30.802+31.222+29+32+30+33+35}{9} \\
 &= 31.486
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.486+31.237+31.113+30.802+31.222+29+32+30+33}{9} \\
 &= 31.095
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.095+31.486+31.237+31.113+30.802+31.222+29+32+30}{9} \\
 &= 30.884
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{30.884+31.095+31.486+41.237+31.113+30.802+31.222+29+32}{9} \\
 &= 30.982
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{30.982+30.884+31.095+31.486+41.237+31.113+30.802+31.222+29}{9} \\
 &= 30.869
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{30.869+30.982+30.884+31.095+31.486+41.237+31.113+30.802+31.222}{9} \\
 &= 31.077
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.077+30.869+30.982+30.884+31.095+31.486+41.237+31.113+30.802}{9} \\
 &= 31.061
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Desember}} &= \frac{\sum x_i}{n} \\
 &= \frac{31.061+31.077+30.869+30.982+30.884+31.095+31.486+41.237+31.113}{9} \\
 &= 31.089
 \end{aligned}$$

Histigo 6 Mg (*Weight Moving Average* n=10)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(28 \times 1) + (30 \times 2) + (31 \times 3) + \dots + (29 \times 10)}{55} \\
 &= 29.363
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(30 \times 1) + (31 \times 2) + (29 \times 3) + \dots + (29.363 \times 10)}{55} \\
 &= 29.357
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(31 \times 1) + (29 \times 2) + (30 \times 3) + \dots + (29.357 \times 10)}{55} \\
 &= 29.324 \\
 F_{\text{April}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(29 \times 1) + (30 \times 2) + (29 \times 3) + \dots + (29.324 \times 10)}{55} \\
 &= 29.297 \\
 F_{\text{Mei}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(30 \times 1) + (29 \times 2) + (30 \times 3) + \dots + (29.297 \times 10)}{55} \\
 &= 29.296 \\
 F_{\text{Juni}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(29 \times 1) + (30 \times 2) + (28 \times 3) + \dots + (29.296 \times 10)}{55} \\
 &= 29.289 \\
 F_{\text{Juli}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(30 \times 1) + (28 \times 2) + (30 \times 3) + \dots + (29.289 \times 10)}{55} \\
 &= 29.294 \\
 F_{\text{Agustus}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(28 \times 1) + (30 \times 2) + (29 \times 3) + \dots + (29.294 \times 10)}{55} \\
 &= 29.294 \\
 F_{\text{September}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(30 \times 1) + (29 \times 2) + (28.854 \times 3) + \dots + (29.294 \times 10)}{55} \\
 &= 29.307 \\
 F_{\text{Oktober}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(29 \times 1) + (28.854 \times 2) + (29.264 \times 3) + \dots + (29.307 \times 10)}{55}
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 &= 29.229 \\
 F_{\text{November}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(28.854 \times 1) + (29.264 \times 2) + (29.224 \times 3) + \dots + (29.229 \times 10)}{55} \\
 &= 29.302
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Desember}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{29.264 \times 1 + (29.224 \times 2) + (29.190 \times 3) + \dots + (29.302 \times 10)}{55} \\
 &= 29.300
 \end{aligned}$$

Gramamine 50 Mg (*Weight Moving Average* n=10)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(19 \times 1) + (25 \times 2) + (23 \times 3) + \dots + (21 \times 10)}{55} \\
 &= 21.363
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(25 \times 1) + (23 \times 2) + (20 \times 3) + \dots + (21.363 \times 10)}{55} \\
 &= 21.320
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(23 \times 1) + (20 \times 2) + (26 \times 3) + \dots + (21.320 \times 10)}{55} \\
 &= 21.226
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(20 \times 1) + (26 \times 2) + (21 \times 3) + \dots + (21.226 \times 10)}{55} \\
 &= 21.182
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(26 \times 1) + (21 \times 2) + (17 \times 3) + \dots + (21.182 \times 10)}{55} \\
 &= 21.163
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Juni}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(21 \times 1) + (17 \times 2) + (24 \times 3) + \dots + (21.163 \times 10)}{55} \\
 &= 21.118
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juli}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(17 \times 1) + (24 \times 2) + (20 \times 3) + \dots + (21.118 \times 10)}{55} \\
 &= 21.153
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Agustus}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(24 \times 1) + (20 \times 2) + (21 \times 3) + \dots + (21.153 \times 10)}{55} \\
 &= 21.192
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{September}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(20 \times 1) + (21 \times 2) + (21.363 \times 3) + \dots + (21.192 \times 10)}{55} \\
 &= 21.163
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Oktober}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(21 \times 1) + (21.363 \times 2) + (21.320 \times 3) + \dots + (21.163 \times 10)}{55} \\
 &= 21.180
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{November}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(21.363 \times 1) + (21.320 \times 2) + (21.226 \times 3) + \dots + (21.180 \times 10)}{55} \\
 &= 21.178
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Desember}} &= \frac{\sum (A_t \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{21.320 \times 1 + (21.226 \times 2) + (21.182 \times 3) + \dots + (21.178 \times 10)}{55} \\
 &= 21.173
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih13. Lapibal 500 Mg (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	13.576
Bias (Mean Error)	0	14	13.6
MAD (Mean Absolute Deviation)	.976	15	13.625
MSE (Mean Squared Error)	1.236	16	13.649
Standard Error (denom=n-2=10)	1.218	17	13.674
MAPE (Mean Absolute Percent Error)	7.277%	18	13.698
Regression line		19	13.723
Demand(y) = 13.258		20	13.747
+ .024 * Time(x)		21	13.772
Statistics		22	13.796
Correlation coefficient	.076	23	13.821
Coefficient of determination (r ²)	.006	24	13.845

14. Imodium (*Moving Average n=6*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{2+3+4+9+6+3}{6} \\
 &= 4.5
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{4.5+2+3+4+9+6}{6} \\
 &= 4.75
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{4.75+4.5+2+3+4+9}{6} \\
 &= 4.541
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{4.541+4.75+4.5+2+3+4}{6} \\
 &= 3.798
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.798+4.541+4.75+4.5+2+3}{6} \\
 &= 3.765 \\
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.765+3.798+4.541+4.75+4.5+2}{6} \\
 &= 3.892 \\
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.892+3.765+3.798+4.541+4.75+4.5}{6} \\
 &= 4.207 \\
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{4.207+3.892+3.765+3.798+4.541+4.75}{6} \\
 &= 4.159 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{4.159+4.207+3.892+3.765+3.798+4.541}{6} \\
 &= 4.060 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{4.060+4.159+4.207+3.892+3.765+3.798}{6} \\
 &= 3.980 \\
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.980+4.060+4.159+4.207+3.892+3.765}{6} \\
 &= 4.011 \\
 F_{\text{Desember}} &= \frac{\sum x_i}{n}
 \end{aligned}$$

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Perhitungan *Forecast Metode Terpilih*

$$= \frac{4.011+3.980+4.060+4.159+4.207+3.892}{6}$$

$$= 4.052$$

5. Myonal (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	5.485
Bias (Mean Error)	0	14	5.688
MAD (Mean Absolute Deviation)	1.133	15	5.89
MSE (Mean Squared Error)	1.649	16	6.093
Standard Error (denom=n-2=10)	1.407	17	6.296
MAPE (Mean Absolute Percent Error)	29.891%	18	6.499
Regression line		19	6.702
Demand(y) = 2.848		20	6.904
+ .203 * Time(x)		21	7.107
Statistics		22	7.31
Correlation coefficient	.479	23	7.513
Coefficient of determination (r ²)	.229	24	7.716

16. Pregabalin 75 Mg (*Moving Average n=7*)

$$F_{\text{Januari}} = \frac{\sum x_i}{n}$$

$$= \frac{6+9+8+7+6+4+10}{7}$$

$$= 7.142$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n}$$

$$= \frac{7.142+6+9+8+7+6+4}{7}$$

$$= 6.734$$

$$F_{\text{Maret}} = \frac{\sum x_i}{n}$$

$$= \frac{6.734+7.142+6+9+8+7+6}{7}$$

$$= 7.125$$

$$F_{\text{April}} = \frac{\sum x_i}{n}$$

$$= \frac{7.125+6.734+7.142+6+9+8+7}{7}$$

$$= 7.286$$

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Perhitungan *Forecast Metode Terpilih*

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.286+7.125+6.734+7.142+6+9+8}{7} \\
 &= 7.327 \\
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.327+7.286+7.125+6.734+7.142+6+9}{7} \\
 &= 7.230 \\
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.230+7.327+7.286+7.125+6.734+7.142+6}{7} \\
 &= 6.978 \\
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.978+7.230+7.327+7.286+7.125+6.734+7.142}{7} \\
 &= 7.117 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.117+6.978+7.230+7.327+7.286+7.125+6.734}{7} \\
 &= 7.114 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.114+7.117+6.978+7.230+7.327+7.286+7.125}{7} \\
 &= 7.168 \\
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.168+7.114+7.117+6.978+7.230+7.327+7.286}{7} \\
 &= 7.174 \\
 F_{\text{Desember}} &= \frac{\sum x_i}{n}
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$= \frac{7.174+7.168+7.114+7.117+6.978+7.230+7.327}{7}$$

$$= 7.158$$

Alofar 100 Mg (*Moving Average* n=9)

$$F_{\text{Januari}} = \frac{\sum x_i}{n}$$

$$= \frac{44+46+43+40+39+48+50+44+42}{9}$$

$$= 44$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n}$$

$$= \frac{44+44+46+43+40+39+48+50+44}{9}$$

$$= 44.222$$

$$F_{\text{Maret}} = \frac{\sum x_i}{n}$$

$$= \frac{44.222+44+44+46+43+40+39+48+50}{9}$$

$$= 44.246$$

$$F_{\text{April}} = \frac{\sum x_i}{n}$$

$$= \frac{44.246+44.222+44+44+46+43+40+39+48}{9}$$

$$= 43.607$$

$$F_{\text{Mei}} = \frac{\sum x_i}{n}$$

$$= \frac{43.607+44.246+44.222+44+44+46+43+40+39}{9}$$

$$= 43.119$$

$$F_{\text{Juni}} = \frac{\sum x_i}{n}$$

$$= \frac{43.119+43.607+44.246+44.222+44+44+46+43+40}{9}$$

$$= 43.577$$

$$F_{\text{Juli}} = \frac{\sum x_i}{n}$$

$$= \frac{43.577+43.119+43.607+44.246+44.222+44+44+46+43}{9}$$

$$= 43.974$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{43.974+43.577+43.119+43.607+44.246+44.222+44+44+46}{9} \\
 &= 44.083
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{44.083+43.974+43.577+43.119+43.607+44.246+44.222+44+44}{9} \\
 &= 43.870
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{43.870+44.083+43.974+43.577+43.119+43.607+44.246+44.222+44}{9} \\
 &= 43.855
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{November}} &= \frac{\sum x_i}{n} \\
 &= \frac{43.855+43.870+44.083+43.974+43.577+43.119+43.607+44.246+44.222}{9} \\
 &= 43.839
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Desember}} &= \frac{\sum x_i}{n} \\
 &= \frac{43.839+43.855+43.870+44.083+43.974+43.577+43.119+43.607+44.246}{9} \\
 &= 43.797
 \end{aligned}$$

RhinoFed (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	8.167
Bias (Mean Error)	0	14	8.013
MAD (Mean Absolute Deviation)	1.077	15	7.859
MSE (Mean Squared Error)	1.857	16	7.705
Standard Error (denom=n-2=10)	1.493	17	7.551
MAPE (Mean Absolute Percent Error)	12.319%	18	7.397
Regression line		19	7.244
Demand(y) = 10.167		20	7.09
-.154 * Time(x)		21	6.936
Statistics		22	6.782
Correlation coefficient	-.363	23	6.628
Coefficient of determination (r ²)	.132	24	6.474

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Perhitungan *Forecast Metode Terpilih*19. Tarivid Otic Sol (*Moving Average n=7*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{10+7+5+2+3+5+6}{7} \\
 &= 5.428
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{5.428+10+7+5+2+3+5+6}{7} \\
 &= 5.346
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{5.346+4.428+10+7+5+2+3}{7} \\
 &= 5.396
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{5.396+5.346+4.428+10+7+5+2}{7} \\
 &= 5.738
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{5.738+5.396+5.346+4.428+10+7+5}{7} \\
 &= 6.272
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.272+5.738+5.396+5.346+4.428+10+7}{7} \\
 &= 6.454
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.454+6.272+5.738+5.396+5.346+4.428+10}{7} \\
 &= 6.376
 \end{aligned}$$

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Perhitungan *Forecast Metode Terpilih*

$$F_{\text{Agustus}} = \frac{\sum x_i}{n} = \frac{6.376+6.454+6.272+5.738+5.396+5.346+4.428}{7}$$

$$= 5.859$$

$$F_{\text{September}} = \frac{\sum x_i}{n} = \frac{5.859+6.376+6.454+6.272+5.738+5.396+5.346}{7}$$

$$= 5.920$$

$$F_{\text{Oktober}} = \frac{\sum x_i}{n} = \frac{5.920+5.859+6.376+6.454+6.272+5.738+5.396+5.346}{7}$$

$$= 6.002$$

$$F_{\text{November}} = \frac{\sum x_i}{n} = \frac{6.002+5.920+5.859+6.376+6.454+6.272+5.738+5.396}{7}$$

$$= 6.089$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n} = \frac{6.089+6.002+5.920+5.859+6.376+6.454+6.272+5.738}{7}$$

$$= 6.139$$

B. Akilen (Tetes Telinga) (*Moving Average n=10*)

$$F_{\text{Januari}} = \frac{\sum x_i}{n} = \frac{8+7+9+10+3+7+5+4+6+5}{10}$$

$$= 6.4$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n} = \frac{6.4+8+7+9+10+3+7+5+4+6}{10}$$

$$= 6.54$$

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Perhitungan *Forecast Metode Terpilih*

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.54+6.4+8+7+9+10+3+7+5+4}{10} \\
 &= 6.594 \\
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.594+6.54+6.4+8+7+9+10+3+7+5}{10} \\
 &= 6.853 \\
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.853+6.594+6.54+6.4+8+7+9+10+3+7}{10} \\
 &= 7.038 \\
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.038+6.853+6.594+6.54+6.4+8+7+9+10+3}{10} \\
 &= 7.042 \\
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.042+7.038+6.853+6.594+6.54+6.4+8+7+9+10}{10} \\
 &= 7.446 \\
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.446+7.042+7.038+6.835+6.594+6.54+6.4+8+7+9}{10} \\
 &= 7.191 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{7.191+7.446+7.042+7.038+6.835+6.594+6.54+6.4+8+7}{10} \\
 &= 7.010 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n}
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$= \frac{7.010+7.191+7.446+7.042+7.038+6.835+6.594+6.54+6.4+8}{10}$$

$$= 7.011$$

$$F_{\text{November}} = \frac{\sum x_i}{n}$$

$$= \frac{7.011+7.010+7.191+7.446+7.042+7.038+6.835+6.594+6.54+6.4}{10}$$

$$= 6.912$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n}$$

$$= \frac{6.912+7.011+7.010+7.191+7.446+7.042+7.038+6.835+6.594+6.54}{10}$$

$$= 6.964$$

21. *Fg Troces (Moving Average n=10)*

$$F_{\text{Januari}} = \frac{\sum x_i}{n}$$

$$= \frac{26+24+23+20+25+26+27+26+20+25}{10}$$

$$= 24.2$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n}$$

$$= \frac{24.2+26+24+23+20+25+26+27+26+20}{10}$$

$$= 24.12$$

$$F_{\text{Maret}} = \frac{\sum x_i}{n}$$

$$= \frac{24.12+24.2+26+24+23+20+25+26+27+26}{10}$$

$$= 24.532$$

$$F_{\text{April}} = \frac{\sum x_i}{n}$$

$$= \frac{24.532+24.12+24.2+26+24+23+20+25+26+27}{10}$$

$$= 24.385$$

$$F_{\text{Mei}} = \frac{\sum x_i}{n}$$

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Perhitungan *Forecast* Metode Terpilih

$$= \frac{24.385+24.532+24.12+24.2+26+24+23+20+25+26}{10}$$

$$= 24.123$$

$$F_{\text{Juni}} = \frac{\sum x_i}{n}$$

$$= \frac{24.123+24.385+24.532+24.12+24.2+26+24+23+20+25}{10}$$

$$= 23.936$$

$$F_{\text{Juli}} = \frac{\sum x_i}{n}$$

$$= \frac{23.936+24.123+24.385+24.532+24.12+24.2+26+24+23+20}{10}$$

$$= 23.829$$

$$F_{\text{Agustus}} = \frac{\sum x_i}{n}$$

$$= \frac{23.829+23.936+24.123+24.385+24.532+24.12+24.2+26+24+23}{10}$$

$$= 24.212$$

$$F_{\text{September}} = \frac{\sum x_i}{n}$$

$$= \frac{24.212+23.829+23.936+24.123+24.385+24.532+24.12+24.2+26+24}{10}$$

$$= 24.333$$

$$F_{\text{Oktober}} = \frac{\sum x_i}{n}$$

$$= \frac{24.333+24.212+23.829+23.936+24.123+24.385+24.532+24.12+24.2+26}{10}$$

$$= 24.367$$

$$F_{\text{November}} = \frac{\sum x_i}{n}$$

$$= \frac{24.367+24.333+24.212+23.829+23.936+24.123+24.385+24.532+24.12+24.2}{10}$$

$$= 24.204$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n}$$

$$= \frac{24.204+24.367+24.333+24.212+23.829+23.936+24.123+24.385+24.532+24.12}{10}$$

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Perhitungan *Forecast* Metode Terpilih

$$= 24.204$$

Kandistatin Drops (*Moving Average* n=9)

$$F_{\text{Januari}} = \frac{\sum x_i}{n} = \frac{6+4+5+3+6+4+8+10+6}{9}$$

$$= 5.777$$

$$F_{\text{Februari}} = \frac{\sum x_i}{n} = \frac{5.777+6+4+5+3+6+4+8+10}{9}$$

$$= 5.753$$

$$F_{\text{Maret}} = \frac{\sum x_i}{n} = \frac{5.753+5.777+6+4+5+3+6+4+8}{9}$$

$$= 5.231$$

$$F_{\text{April}} = \frac{\sum x_i}{n} = \frac{5.231+5.753+5.777+6+4+5+3+6+4}{9}$$

$$= 4.979$$

$$F_{\text{Mei}} = \frac{\sum x_i}{n} = \frac{4.979+5.231+5.753+5.777+6+4+5+3+6}{9}$$

$$= 5.087$$

$$F_{\text{Juni}} = \frac{\sum x_i}{n} = \frac{5.087+4.979+5.231+5.753+5.777+6+4+5+3}{9}$$

$$= 4.986$$

$$F_{\text{Juli}} = \frac{\sum x_i}{n} = \frac{4.986+5.087+4.979+5.231+5.753+5.777+6+4+5}{9}$$

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Perhitungan *Forecast Metode Terpilih*

$$= 5.207$$

$$F_{\text{Agustus}} = \frac{\sum x_i}{n} = \frac{5.207+4.986+5.087+4.979+5.231+5.753+5.777+6+4}{9}$$

$$= 5.230$$

$$F_{\text{September}} = \frac{\sum x_i}{n} = \frac{5.230+5.207+4.986+5.087+4.979+5.231+5.753+5.777+6}{9}$$

$$= 5.367$$

$$F_{\text{Oktober}} = \frac{\sum x_i}{n} = \frac{5.367+5.230+5.207+4.986+5.087+4.979+5.231+5.753+5.777}{9}$$

$$= 5.296$$

$$F_{\text{November}} = \frac{\sum x_i}{n} = \frac{5.296+5.367+5.230+5.207+4.986+5.087+4.979+5.231+5.753}{9}$$

$$= 5.243$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n} = \frac{5.243+5.296+5.367+5.230+5.207+4.986+5.087+4.979+5.231}{9} = 5.186$$

Fitaquin Cream (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	3.667
Bias (Mean Error)	0	14	3.474
MAD (Mean Absolute Deviation)	1.848	15	3.282
MSE (Mean Squared Error)	5.469	16	3.09
Standard Error (denom=n-2=10)	2.562	17	2.897
MAPE (Mean Absolute Percent Error)	59.429%	18	2.705
Regression line		19	2.513
Demand(y) = 6.167		20	2.321
-.192 * Time(x)		21	2.128
Statistics		22	1.936
Correlation coefficient	-.273	23	1.744
Coefficient of determination (r ²)	.075	24	1.551

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Perhitungan *Forecast* Metode Terpilih24. Dobrizol (*Moving Average* n=7)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{15+16+17+14+11+15+8}{7} \\
 &= 13.714
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{13.714+15+16+17+14+11+15}{7} \\
 &= 14.530
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{14.530+13.714+15+16+17+14+11}{7} \\
 &= 14.463
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{14.463+14.530+13.714+15+16+17+14}{7} \\
 &= 14.958
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{14.958+14.463+14.530+13.714+15+16+17}{7} \\
 &= 15.095
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{15.095+14.958+14.463+14.530+14.714+15+16}{7} \\
 &= 14.823
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{14.823+15.095+14.958+14.463+14.530+14.714+15}{7} \\
 &= 14.655
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$F_{\text{Agustus}} = \frac{\sum x_i}{n} = \frac{14.655+14.823+15.095+14.958+14.463+14.530+14.714}{7}$$

$$= 14.605$$

$$F_{\text{September}} = \frac{\sum x_i}{n} = \frac{14.605+14.655+14.823+15.095+14.958+14.463+14.530}{7}$$

$$= 14.733$$

$$F_{\text{Oktober}} = \frac{\sum x_i}{n} = \frac{14.733+14.605+14.655+14.824+15.095+14.958+14.463}{7}$$

$$= 14.762$$

$$F_{\text{November}} = \frac{\sum x_i}{n} = \frac{14.762+14.733+14.605+14.655+14.824+15.095+14.958}{7}$$

$$= 14.804$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n} = \frac{14.804+14.762+14.733+14.605+14.655+14.824+15.095}{7}$$

$$= 14.782$$

Burnazin Cream (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures			13
Bias (Mean Error)	0	14	2.527
MAD (Mean Absolute Deviation)	.898	15	2.341
MSE (Mean Squared Error)	1.167	16	2.156
Standard Error (denom=n-2=10)	1.183	17	1.971
MAPE (Mean Absolute Percent Error)	27.395%	18	1.786
Regression line			19
Demand(y) = 5.121			20
-.185 * Time(x)			21
Statistics			22
Correlation coefficient	-.51	23	.859
Coefficient of determination (r ²)	.26	24	.674

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Perhitungan *Forecast Metode Terpilih*26. Concor 2.5 Mg (*Exponential Smoothing* $\alpha = 0,1$)

$$\begin{aligned}
 F_{\text{Januari}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(2) + (1-0.1)7 \\
 &= 6.5 \\
 F_{\text{Februari}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(6.5) + (1-0.1)2 \\
 &= 2.45 \\
 F_{\text{Maret}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(2.45) + (1-0.1)6.5 \\
 &= 6.095 \\
 F_{\text{April}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(6.095) + (1-0.1)2.45 \\
 &= 2.814 \\
 F_{\text{Mei}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(2.814) + (1-0.1)6.095 \\
 &= 5.766 \\
 F_{\text{Juni}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(5.766) + (1-0.1)2.814 \\
 &= 3.109 \\
 F_{\text{Juli}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(3.109) + (1-0.1)5.766 \\
 &= 5.501 \\
 F_{\text{Agustus}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(5.501) + (1-0.1)3.109 \\
 &= 3.348 \\
 F_{\text{September}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(3.348) + (1-0.1)5.501 \\
 &= 5.285 \\
 F_{\text{Oktober}} &= \alpha At_{-1} + (1 - \alpha) Ft_{-1} \\
 &= 0.1(5.285) + (1-0.1)3.348 \\
 &= 3.542
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{November}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0.1(3.542) + (1-0.1)5.285 \\
 &= 5.111
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Desember}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0.1(5.111) + (1-0.1)3.542 \\
 &= 3.699
 \end{aligned}$$

27. Mucopect 25 Mg (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	3.621
Bias (Mean Error)	0	14	3.537
MAD (Mean Absolute Deviation)	1.521	15	3.453
MSE (Mean Squared Error)	3.888	16	3.369
Standard Error (denom=n-2=10)	2.16	17	3.286
MAPE (Mean Absolute Percent Error)	44.35%	18	3.202
Regression line		19	3.118
Demand(y) = 4.712		20	3.034
-.084 * Time(x)		21	2.95
Statistics		22	2.866
Correlation coefficient	-.145	23	2.782
Coefficient of determination (r ²)	.021	24	2.698

28. Lerzin Drops 15 MI (*Moving Average n=10*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{10+8+11+9+10+8+6+8+7+9}{10} \\
 &= 8.6
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.6+10+8+11+9+10+8+6+8+7}{10} \\
 &= 8.56
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.56+8.6+10+8+11+9+10+8+6+8}{10} \\
 &= 8.716
 \end{aligned}$$

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Perhitungan *Forecast* Metode Terpilih

$$\begin{aligned}
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.716+8.56+8.6+10+8+11+9+10+8+6}{10} \\
 &= 8.787 \\
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{6.787+8.716+8.56+8.6+10+8+11+9+10+8}{10} \\
 &= 9.066 \\
 F_{\text{Juni}} &= \frac{\sum x_i}{n} \\
 &= \frac{9.066+6.787+8.716+8.56+8.6+10+8+11+9+10}{10} \\
 &= 9.172 \\
 F_{\text{Juli}} &= \frac{\sum x_i}{n} \\
 &= \frac{9.172+9.066+6.787+8.716+8.56+8.6+10+8+11+9}{10} \\
 &= 9.090 \\
 F_{\text{Agustus}} &= \frac{\sum x_i}{n} \\
 &= \frac{9.090+9.172+9.066+6.787+8.716+8.56+8.6+10+8+11}{10} \\
 &= 9.099 \\
 F_{\text{September}} &= \frac{\sum x_i}{n} \\
 &= \frac{9.099+9.090+9.172+9.066+6.787+8.716+8.56+8.6+10+8}{10} \\
 &= 8.909 \\
 F_{\text{Oktober}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.909+9.099+9.090+9.172+9.066+6.787+8.716+8.56+8.6+10}{10} \\
 &= 9.000 \\
 F_{\text{November}} &= \frac{\sum x_i}{n}
 \end{aligned}$$

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Perhitungan *Forecast Metode Terpilih*

$$\begin{aligned}
 &= \frac{9+8.909+9.099+9.090+9.172+9.066+6.787+8.716+8.56+8.6}{10} \\
 &= 8.900 \\
 F_{\text{Desember}} &= \frac{\sum x_i}{n} \\
 &= \frac{8.900+9+8.909+9.099+9.090+9.172+9.066+6.787+8.716+8.56}{10} \\
 &= 8.930
 \end{aligned}$$

2. Lameson 8 Mg (*Moving Average n=10*)

$$\begin{aligned}
 F_{\text{Januari}} &= \frac{\sum x_i}{n} \\
 &= \frac{3+4+2+3+4+6+5+3+4+5}{10} \\
 &= 3.9 \\
 F_{\text{Februari}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.9+3+4+2+3+4+6+5+3+4}{10} \\
 &= 3.79 \\
 F_{\text{Maret}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.79+3.9+3+4+2+3+4+6+5+3}{10} \\
 &= 3.769 \\
 F_{\text{April}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.769+3.79+3.9+3+4+2+3+4+6+5}{10} \\
 &= 3.845 \\
 F_{\text{Mei}} &= \frac{\sum x_i}{n} \\
 &= \frac{3.845+3.769+3.79+3.9+3+4+2+3+4+6}{10} \\
 &= 3.730 \\
 F_{\text{Juni}} &= \frac{\sum x_i}{n}
 \end{aligned}$$

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Perhitungan *Forecast Metode Terpilih*

$$= \frac{3.730+3.845+3.769+3.79+3.9+3+4+2+3+4}{10}$$

$$= 3.503$$

$$F_{\text{Juli}} = \frac{\sum x_i}{n}$$

$$= \frac{3.503+3.730+3.845+3.769+3.79+3.9+3+4+2+3}{10}$$

$$= 3.453$$

$$F_{\text{Agustus}} = \frac{\sum x_i}{n}$$

$$= \frac{3.453+3.503+3.730+3.845+3.769+3.79+3.9+3+4+2}{10}$$

$$= 3.499$$

$$F_{\text{September}} = \frac{\sum x_i}{n}$$

$$= \frac{3.499+3.453+3.503+3.730+3.845+3.769+3.79+3.9+3+4}{10}$$

$$= 3.649$$

$$F_{\text{Oktober}} = \frac{\sum x_i}{n}$$

$$= \frac{3.649+3.499+3.453+3.503+3.730+3.845+3.769+3.79+3.9+3}{10}$$

$$= 3.614$$

$$F_{\text{November}} = \frac{\sum x_i}{n}$$

$$= \frac{3.614+3.649+3.499+3.453+3.503+3.730+3.845+3.769+3.79+3.9}{10}$$

$$= 3.675$$

$$F_{\text{Desember}} = \frac{\sum x_i}{n}$$

$$= \frac{3.675+3.614+3.649+3.499+3.453+3.503+3.730+3.845+3.769+3.79}{10}$$

$$= 3.653$$

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Perhitungan *Forecast* Metode Terpilih

30. Phenytoin 100 Mg Capsule (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	4.47
Bias (Mean Error)	0	14	4.452
MAD (Mean Absolute Deviation)	1.602	15	4.435
MSE (Mean Squared Error)	4.406	16	4.417
Standard Error (denom=n-2=10)	2.299	17	4.4
MAPE (Mean Absolute Percent Error)	38.448%	18	4.382
Regression line		19	4.365
Demand(y) = 4.697		20	4.347
-.017 * Time(x)		21	4.33
Statistics		22	4.312
Correlation coefficient	-.029	23	4.295
Coefficient of determination (r ²)	.001	24	4.277

31. Ryvel Sirup (*Linear Regression*)

Measure	Value	Future	Forecast
Error Measures		13	3.848
Bias (Mean Error)	0	14	3.684
MAD (Mean Absolute Deviation)	1.252	15	3.52
MSE (Mean Squared Error)	2.588	16	3.355
Standard Error (denom=n-2=10)	1.762	17	3.191
MAPE (Mean Absolute Percent Error)	25.67%	18	3.027
Regression line		19	2.862
Demand(y) = 5.985		20	2.698
-.164 * Time(x)		21	2.534
Statistics		22	2.369
Correlation coefficient	-.333	23	2.205
Coefficient of determination (r ²)	.111	24	2.041

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TRACKING SIGNAL

1. Vintolin Inhaler

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	23							
February	25							
March	26							
April	28							
May	20							
June	22							
July	24							
August	20							
September	25	23.5	1.5	1.5	1.5	1.5	1.5	1
October	23	23.75	-.75	.75	.75	2.25	1.125	.667
November	26	23.5	2.5	3.25	2.5	4.75	1.583	2.053
December	21	23.5	-2.5	.75	2.5	7.25	1.813	414

2. Diane

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	8	8.923	-.923	-.923	.923	.923	.923	-1
February	10	8.755	1.245	.322	1.245	2.168	1.084	.297
March	9	8.587	-.413	-.734	.413	2.58	.86	-.854
April	7	8.42	-1.42	-.685	1.42	4	1	-.685
May	10	8.252	1.748	1.063	1.748	5.748	1.15	.925
June	8	8.084	-.084	.979	.084	5.832	.972	1.007
July	6	7.916	-1.916	-.937	1.916	7.748	1.107	-.847
August	8	7.748	.252	-.685	.252	8	1	-.685
September	7	7.58	-.58	-1.266	.58	8.58	.953	-1.328
October	11	7.413	3.587	2.322	3.587	12.168	1.217	1.908
November	4	7.245	-3.245	-.923	3.245	15.413	1.401	-.659
December	8	7.077	.923	0	.923	16.336	1.361	0

3. Nexium 40 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	6	5.513	-.487	-.487	.487	.487	.487	1
February	4	5.632	-1.632	-1.145	1.632	2.119	1.059	-1.08
March	6	5.751	-.249	-.895	.249	2.368	.789	-1.134
April	6	5.869	-.131	-.765	.131	2.499	.625	-1.224
May	7	5.988	1.012	-.247	1.012	3.51	.702	.352
June	5	6.107	-1.107	-.86	1.107	4.618	.77	-1.118
July	6	6.226	-.226	-1.086	.226	4.844	.692	-1.57
August	8	6.345	1.655	-.569	1.655	6.499	.812	.7
September	7	6.464	-.536	1.105	.536	7.035	.782	1.414
October	6	6.583	-.583	.522	.583	7.618	.762	.685
November	8	6.702	1.298	1.821	1.298	8.916	.811	2.246
December	5	6.821	-1.821	0	1.821	10.737	.895	0

4. Lipitor 10 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	7							
March	3							
April	1							
May	4							
June	5							
July	6							
August	4							
September	3							
October	2							
November	4	3.636	-.364	.364	.364	.364	.364	1
December	3	3.691	-.691	-.327	.691	1.055	.527	-.621

5. Pariet 10 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	7	2	.5	.5	.5	.5	.5	1
March	3	2.5	-.5	.55	.5	5.5	2.75	2
April	1	2.55	-1.55	3.95	1.55	7.05	2.35	1.681
May	4	2.395	1.605	5.555	1.605	8.655	2.164	2.567
June	5	2.556	2.445	8	2.445	11.1	2.22	3.604
July	6	2.8	3.2	11.2	3.2	14.3	2.383	4.699
August	4	3.12	.88	12.08	.88	15.18	2.169	5.57
September	3	3.208	-.208	11.872	.208	15.388	1.923	6.172
October	2	3.187	-1.187	10.684	1.187	16.575	1.842	5.802
November	4	3.068	.932	11.616	.932	17.506	1.751	6.635
December	3	3.162	-.162	11.454	.162	17.668	1.606	7.132

6. Sucralfat Suspensi 500 Mg/5ml 100 MI

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	40							
February	42							
March	45							
April	42							
May	40							
June	43							
July	42							
August	39							
September	36							
October	40	40.333	-.333	-.333	.333	.333	.333	-1
November	41	40.133	.867	.533	.867	1.2	.6	.889
December	40	40.133	-.133	.4	.133	1.333	.444	.9

7. Inepsa Sirup 100 MI

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	8							
February	6							
March	8							
April	9							
May	10							
June	11							
July	5							
August	8							
September	7							
October	8	8	0	0	0	0	0	1
November	7	8	-1	-1	1	1	.5	-.2
December	10	8.111	1.889	.889	1.889	2.889	.963	.923

8. Depakene Sirup

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1							
February	3							
March	2							
April	2							
May	3							
June	1							
July	1							
August	3							
September	5							
October	4							
November	6	2.5	3.5	3.5	3.5	3.5	3.5	1
December	3	3	0	3.5	0	3.5	1.75	2



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9. Mexon

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	54							
February	56							
March	50							
April	48							
May	60							
June	55	53.6	1.4	1.4	1.4	1.4	1.4	1
July	53	53.8	-0.8	0.6	0.8	2.2	1.1	545
August	54	53.2	0.8	1.4	0.8	3	1	1.4
September	50	54	-4	-2.6	4	7	1.75	-1.486
October	56	54.4	1.6	-1	1.6	8.6	1.72	-581
November	47	53.6	-6.6	-7.6	6.6	15.2	2.533	-3
December	49	52	-3	-10.6	3	18.2	2.6	-4.077

10. Lodia 2 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	27							
February	32							
March	30							
April	35							
May	28							
June	30							
July	29							
August	35							
September	33							
October	30	31	-1	-1	1	1	1	-1
November	32	31.333	.667	-.333	.667	1.667	.833	-4
December	29	31.333	-2.333	-2.667	2.333	4	1.333	-2

11. Histigo 6 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	28							
February	24							
March	28							
April	30							
May	31							
June	29							
July	30							
August	29							
September	30							
October	28							
November	30	29.109	.891	.891	.891	.891	.891	1
December	29	29.345	-.345	.545	.345	1.236	.618	.882

12. Gramamine 50 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	20							
February	22							
March	19							
April	25							
May	23							
June	20							
July	26							
August	21							
September	17							
October	24							
November	20	21.8	-1.8	-1.8	1.8	1.8	1.8	-1
December	21	21.491	-.491	-2.291	.491	2.291	1.145	-2

13. Lapibal 500 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	12	13.282	-1.282	-1.282	1.282	1.282	1.282	-1
February	15	13.307	1.693	.411	1.693	2.976	1.488	277
March	13	13.331	-.331	.08	.331	3.307	1.102	.073
April	14	13.355	.645	.725	.645	3.951	.988	734
May	13	13.38	-.38	.345	.38	4.331	.866	.398
June	15	13.404	1.596	1.941	1.596	5.927	.988	1.965
July	13	13.429	-.429	1.512	.429	6.355	.908	1.665
August	12	13.453	-1.453	.058	1.453	7.809	.976	.06
September	13	13.478	-.478	-.42	.478	8.287	.921	-.456
October	12	13.502	-1.502	-1.922	1.502	9.789	.979	-1.963
November	14	13.527	.473	-1.449	.473	10.262	.933	-1.533
December	15	13.551	1.449	0	1.449	11.711	.976	0

14. Imodium

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	5							
March	4							
April	7							
May	2							
June	1							
July	3	3.5	-.5	-.5	.5	.5	.5	-1
August	6	3.667	2.333	1.833	2.333	2.833	1.417	1.294
September	9	3.833	5.167	7	5.167	8	2.667	2.625
October	4	4.667	-.667	6.333	.667	8.667	2.167	2.923
November	3	4.167	-1.167	5.167	1.167	9.833	1.967	2.627
December	2	4.333	-2.333	2.833	2.333	12.167	2.028	1.397

15. Myonal

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	3.051	-1.051	-1.051	1.051	1.051	1.051	-1
February	4	3.254	.746	-.305	.746	1.797	.899	-.34
March	3	3.457	-.457	-.762	.457	2.254	.751	-1.014
April	4	3.66	.34	-.422	.34	2.594	.649	-.65
May	3	3.862	-.862	-1.284	.862	3.457	.691	-1.838
June	6	4.065	1.935	.65	1.935	5.392	.899	.724
July	5	4.268	.732	1.382	.732	6.124	.875	1.58
August	3	4.471	-1.471	-.089	1.471	7.594	.949	-.093
September	4	4.674	-.674	-.762	.674	8.268	.919	-.83
October	6	4.876	1.124	.361	1.124	9.392	.939	.385
November	7	5.079	1.921	2.282	1.921	11.312	1.028	2.219
December	3	5.282	-2.282	0	2.282	13.594	1.133	0

16. Pregabalin 75 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	6							
February	5							
March	8							
April	5							
May	8							
June	10							
July	4							
August	6	6.571	-.571	-.571	.571	.571	.571	-1
September	7	6.571	.429	-.143	.429	1	.5	-.286
October	8	6.857	1.143	1	1.143	2.143	.714	1.4
November	9	6.857	2.143	3.143	2.143	4.286	1.071	2.933
December	6	7.429	-1.429	1.714	1.429	5.714	1.143	1.5

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17. Alofar 100 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	44							
February	40							
March	45							
April	42							
May	44							
June	50							
July	48							
August	39							
September	40							
October	43	43.556	-.556	-.556	.556	.556	.556	-1
November	46	43.444	2.556	2	2.556	3.111	1.556	1.286
December	44	44.111	-.111	1.889	.111	3.222	1.074	1.759

18. Rhinofed

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	9	10.013	-1.013	-1.013	1.013	1.013	1.013	-1
February	11	9.859	1.141	.128	1.141	2.154	1.077	.119
March	9	9.705	-.705	-.577	.705	2.859	.953	-.605
April	10	9.551	.449	-.128	.449	3.308	.827	-.155
May	8	9.397	-1.397	-1.526	1.397	4.705	.941	-1.621
June	9	9.244	-.244	-1.769	.244	4.949	.825	-2.145
July	10	9.09	.91	-.859	.91	5.859	.837	-1.026
August	12	8.936	3.064	2.205	3.064	8.923	1.115	1.977
September	9	8.782	.218	2.423	.218	9.141	1.016	2.386
October	8	8.628	-.628	1.795	.628	9.769	.977	1.837
November	6	8.474	-2.474	-.679	2.474	12.244	1.113	-.61
December	9	8.321	.679	0	.679	12.923	1.077	0

19. Tarivid Otic Sol

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	3							
March	1							
April	1							
May	3							
June	6							
July	5							
August	3	3	0	0	0	0	0	0
September	2	3.143	-1.143	-1.143	1.143	1.143	.571	-2
October	5	3	2	.857	2	3.143	1.048	.818
November	7	3.571	3.429	4.286	3.429	6.571	1.643	2.609
December	10	4.429	5.571	9.857	5.571	12.143	2.429	4.059

20. Akilen (Tetes Telinga)

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	6							
February	8							
March	5							
April	6							
May	4							
June	5							
July	7							
August	3							
September	10							
October	9							
November	7	6.3	.7	.7	.7	.7	.7	1
December	8	6.4	1.6	2.3	1.6	2.3	1.15	2

21. Fg Troces

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	26							
February	24							
March	25							
April	20							
May	26							
June	27							
July	26							
August	25							
September	20							
October	23							
November	24	24.2	-.2	-.2	.2	.2	.2	-1
December	26	24	2	1.8	2	2.2	1.1	1.636

22. Kandistatin Drops

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	6							
February	5							
March	7							
April	6							
May	10							
June	8							
July	4							
August	6							
September	3							
October	5	6.111	-1.111	-1.111	1.111	1.111	1.111	-1
November	4	6	-.2	-3.111	.2	3.111	1.556	-.2
December	6	5.889	.111	-.3	.111	3.222	1.074	-2.793

23. Fitaquin Cream

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4	5.974	-1.974	-1.974	1.974	1.974	1.974	-1
February	5	5.782	-.782	-2.756	.782	2.756	1.378	-2
March	4	5.59	-1.59	-4.346	1.59	4.346	1.449	-3
April	6	5.397	.603	-3.744	.603	4.949	1.237	-3.026
May	8	5.205	2.795	-.949	2.795	7.744	1.549	-.613
June	5	5.013	-.013	-.962	.013	7.756	1.293	-.744
July	7	4.821	2.179	1.218	2.179	9.936	1.419	.858
August	10	4.628	5.372	6.59	5.372	15.308	1.913	3.444
September	3	4.436	-1.436	5.154	1.436	16.744	1.86	2.77
October	1	4.244	-3.244	1.91	3.244	19.987	1.999	.956
November	2	4.051	-2.051	-.141	2.051	22.038	2.003	-.07
December	4	3.859	.141	0	.141	22.179	1.848	0

24. Dobrizol

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	7							
February	12							
March	9							
April	10							
May	13							
June	8							
July	15							
August	11	10.571	.429	.429	.429	.429	.429	1
September	14	11.143	2.857	3.286	2.857	3.286	1.643	2
October	17	11.429	5.571	8.857	5.571	8.857	2.952	3
November	16	12.571	3.429	12.286	3.429	12.286	3.071	4
December	15	13.429	1.571	13.857	1.571	13.857	2.771	5

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25. Burnazin Cream

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	5	4.936	.064	.064	.064	.064	.064	1
February	6	4.751	1.249	1.314	1.249	1.314	.657	2
March	4	4.565	-.565	.748	.565	1.879	.626	1.195
April	5	4.38	.62	1.368	.62	2.499	.625	2.19
May	3	4.195	-1.195	.174	1.195	3.693	.739	.235
June	2	4.009	-2.009	-1.836	2.009	5.703	.95	-1.931
July	5	3.824	1.176	-.66	1.176	6.879	.983	-.671
August	4	3.639	.361	-.298	.361	7.24	.905	-.33
September	3	3.453	-.453	-.752	.453	7.693	.855	-.879
October	3	3.268	-.268	-1.02	.268	7.962	.796	-1.281
November	5	3.083	1.917	.897	1.917	9.879	.898	1
December	2	2.897	-.897	0	.897	10.776	.898	0

26. Concor 2,5 Mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3							
February	4	3	1	1	1	1	1	1
March	5	3.1	1.9	2.9	1.9	2.9	1.45	2
April	7	3.29	3.71	6.61	3.71	6.61	2.203	3
May	2	3.661	-1.661	4.949	1.661	8.271	2.068	2.393
June	5	3.495	1.505	6.454	1.505	9.776	1.955	3.301
July	3	3.645	-.645	5.809	.645	10.422	1.737	3.344
August	8	3.581	4.419	10.228	4.419	14.841	2.12	4.824
September	7	4.023	2.977	13.205	2.977	17.818	2.227	5.929
October	4	4.321	-.321	12.885	.321	18.138	2.015	6.393
November	7	4.288	2.712	15.596	2.712	20.85	2.085	7.48
December	2	4.56	-2.56	13.036	2.56	23.41	2.128	6.126

27. Mucopect 15 Mg/5ml

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	4.628	-2.628	-2.628	2.628	2.628	2.628	-1
February	3	4.544	-1.544	-4.172	1.544	4.172	2.086	-2
March	5	4.46	-.54	-3.633	.54	4.712	1.571	-2.313
April	4	4.376	-.376	-4.009	.376	5.089	1.272	-3.152
May	8	4.293	3.707	-.302	3.707	8.796	1.759	-.172
June	5	4.209	.791	.49	.791	9.587	1.598	.306
July	8	4.125	3.875	4.365	3.875	13.463	1.923	2.27
August	4	4.041	-.041	4.324	.041	13.504	1.688	2.562
September	2	3.957	-1.957	2.367	1.957	15.46	1.718	1.378
October	3	3.873	-.873	1.494	.873	16.333	1.633	.915
November	4	3.789	.211	1.705	.211	16.544	1.504	1.134
December	2	3.705	-1.705	0	1.705	18.249	1.521	0

28. Lerzin Drops 15 ml

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	8							
February	7							
March	9							
April	7							
May	8							
June	6							
July	8							
August	10							
September	9							
October	11							
November	8	8.3	-.3	-.3	.3	.3	.3	-1
December	10	8.3	1.7	1.4	1.7	2	1	1.4

29. Lameson 8 M

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4							
February	6							
March	5							
April	4							
May	3							
June	5							
July	6							
August	4							
September	3							
October	2							
November	4	4.2	-.2	-.2	.2	.2	.2	-1
December	3	4.2	-1.2	-1.4	1.2	1.4	.7	-2

30. Phenytoin 100 Mg Capsule

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4	4.679	-.679	-.679	.679	.679	.679	-1
February	5	4.662	-.338	-1.017	.338	1.017	.509	-.671
March	4	4.645	-.645	-1.662	.645	1.662	.554	-1.78
April	3	4.627	-1.627	-3.289	1.627	3.289	.822	-3.178
May	6	4.61	-.61	-3.900	.61	3.900	.936	-1.306
June	4	4.592	-.592	-4.492	.592	4.492	.879	-2.065
July	7	4.575	-.575	-5.067	.575	5.067	1.1	-.555
August	3	4.557	-1.557	-6.624	1.557	6.624	1.157	-.818
September	10	4.54	-.54	-7.164	.54	7.164	1.635	2.761
October	3	4.522	-1.522	-8.686	1.522	8.686	1.624	1.843
November	2	4.505	-2.505	-11.191	2.505	11.191	1.704	.286
December	4	4.487	-.487	-11.678	.487	11.678	1.602	0

31. Ryvel Sirup

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4	5.821	-1.821	-1.821	1.821	1.821	1.821	-1
February	6	5.656	-.344	-2.165	.344	2.165	1.082	-1.365
March	5	5.492	-.492	-2.657	.492	2.657	.885	-2.223
April	7	5.328	-.672	-3.329	.672	3.329	1.082	-.274
May	4	5.163	-1.163	-4.492	1.163	4.492	1.098	-1.329
June	9	4.999	-.999	-5.491	.999	5.491	1.582	1.607
July	4	4.834	-.834	-6.325	.834	6.325	1.475	1.157
August	3	4.67	-1.67	-8.000	1.67	8.000	1.5	.025
September	6	4.506	-.506	-8.506	.506	8.506	1.499	1.022
October	4	4.341	-.341	-8.847	.341	8.847	1.383	.86
November	3	4.177	-1.177	-10.024	1.177	10.024	1.365	-.009
December	4	4.013	-.013	-10.037	.013	10.037	1.252	0

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REKOMENDASI PENGENDALIAN PERSEDIAAN

Adapun rekomendasi atau usulan kepada Apotek adalah sebagai berikut:

No	Nama Obat	Rekomendasi	
		Jumlah Pemesanan Obat	Waktu dan Frekuensi Pemesanan Kembali
1	Ventolin Inhaler	60 botol	Obat Paten Merk Ventolin Inhaler ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 60 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 5 kali.
2	Diane	26 kotak	Obat Paten Merk Diane ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 kotak dengan jumlah pemesanan sebanyak 26 kotak dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 3 kali.
3	Nexium 40 Mg	29 strip	Obat Paten Merk Nexium 40 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 29 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 3 kali.
4	Lipitor 10 Mg	16 strip	Obat Paten Merk Lipitor 10 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 16 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 3 kali.
5	Pariet 10 Mg	13 strip	Obat Paten Merk Pariet 10 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 26 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
6	Sucralfat suspensi 500 mg/5 ml 100 ml	207 botol	Obat Paten Merk Sucralfat suspensi 500 mg/5 ml 100 ml ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 207 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.

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© Hak cipta milik UIN Suska Riau	Inpepsa Sirup 100 ml	43 botol	Obat Paten Merk Inpepsa Sirup 100 ml ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 43 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
	Depakene Sirup	18 botol	Obat Paten Merk Depakene Sirup ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 18 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
	Mexon	301 strip	Obat Paten Merk Mexon ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 2 strip dengan jumlah pemesanan sebanyak 301 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
	10 Lodia 2 Mg	183 strip	Obat Paten Merk Lodia 2 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 183 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
	1 Histigo 6 Mg	178 strip	Obat Paten Merk Histigo 6 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 178 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
	2 Gramamine 50 Mg	135 strip	Obat Paten Merk Gramamine 50 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 135 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
	3 Lapibal 500 Mg	86 strip	Obat Paten Merk Lapibal 500 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 86 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.

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4	Imodium	27 strip	Obat Paten Merk Imodium ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 27 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
5	Myonal	36 strip	Obat Paten Merk Myonal ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 36 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
6	Pregabalin 75 Mg	49 strip	Obat Paten Merk Pregabalin 75 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 49 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
17	Alofar 100 Mg	305 strip	Obat Paten Merk Alofar 100 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 6 strip dengan jumlah pemesanan sebanyak 305 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
18	Rhinofed	59 strip	Obat Paten Merk Rhinofed ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 59 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
19	Tarivid Otic Sol	36 botol	Obat Paten Merk Tarivid Otic Sol ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 36 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
20	Akilen (Tetes Telinga)	50 botol	Obat Paten Merk Akilen (Tetes Telinga) ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 50 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
21	Fg Troces	181 strip	Obat Paten Merk Fg Troces ini dapat dilakukan pemesanan kembali pada saat

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22	Kandistatin Drops	42 botol	Obat Paten Merk Kandistatin Drop ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 42 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
23	Fitaquin Cream	27 tube	Obat Paten Merk Fitaquin Cream ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 tube dengan jumlah pemesanan sebanyak 27 tube dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
24	Dobrizol	103 strip	Obat Paten Merk Dobrizol ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 103 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 2 kali.
25	Burnazin Cream	20 tube	Obat Paten Merk Burnazin Cream ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 tube dengan jumlah pemesanan sebanyak 20 tube dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
26	Concor 2,5 Mg	36 strip	Obat Paten Merk Concor 2,5 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 3 strip dengan jumlah pemesanan sebanyak 36 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
27	Mucopect 15 Mg/5ml	29 botol	Obat Paten Merk Mucopect 15 Mg/5ml ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 29 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
28	Lerzin Drops 15 ml	69 botol	Obat Paten Merk Lerzin Drops 15 ml ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 2 botol dengan

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29	Lameson 8 Mg	31 strip	Obat Paten Merk Lameson 8 Mg ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 strip dengan jumlah pemesanan sebanyak 31 strip dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
30	Phenytoin 100 Mg Capsule	37 botol	Obat Paten Merk Phenytoin 100 Mg Capsule ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 37 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.
31	Ryvel Sirup	33 botol	Obat Paten Merk Ryvel Sirup ini dapat dilakukan pemesanan kembali pada saat obat tersebut tersisa 1 botol dengan jumlah pemesanan sebanyak 33 botol dan dalam setahun direkomendasikan melakukan pemesanan obat sebanyak 1 kali.

Seluruh obat yang termasuk ke dalam Tabel ini merupakan kelompok obat yang termasuk ke dalam kelompok A, dimana kelompok A ini yang memberikan benefit paling besar kepada Apotek. Oleh sebab itu, kelompok obat ini harus lebih diutamakan dalam pengendalian persediaannya. Kemudian di harapkan Apotek dapat melakukan pengecekan obat minimal 3 kali dalam seminggu, untuk menghindari kekosongan obat, dan apotek diharapkan lebih mendahulukan obat yang sudah di pesan pada saat periode sebelumnya terjual lebih dahulu agar tidak kedaluwarsa.

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BIOGRAFI PENULIS



Nama Nofita Putri Rahmadhani lahir di Batam pada tanggal 29 Desember 1999 anak dari Ayahanda Novriyanto dan Ibunda Fitrianita. Penulis merupakan anak pertama dari empat bersaudara. Adapun perjalanan penulis dalam jenjang menuntut ilmu pengetahuan, penulis telah mengikuti pendidikan formal sebagai berikut:

Tahun 2006	Memasuki Sekolah Dasar Negeri 09 Duri Barat, dan menyelesaikan pendidikan SD pada tahun 2012
Tahun 2012	Memasuki Sekolah Menengah Pertama Negeri 3 Mandau dan menyelesaikan pendidikan SMP pada tahun 2015
Tahun 2015	Memasuki Sekolah Menengah Atas Negeri 2 Mandau dan menyelesaikan pendidikan SMA pada tahun 2018
Tahun 2018	Terdaftar sebagai mahasiswa Universitas Islam Negeri (UIN) Sultan Syarif Kasim Riau, Jurusan Teknik Industri.
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