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Mahir Pradana, Ph.D.

## Analisis Regresi dan Analisis Jalur untuk

# Riset Bisnis

## Menggunakan SPSS 29.0 & SMART-PLS 4.0

Dr. Zainuddin Iba, S.E., M.M.
Dr (Cand). Aditya Wardhana, S.E., M.Si., M.M., CHRMP., CIRP., CHRA., CPP., CHRBP.

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## KATA PENGANTAR

Buku "Analisis Regresi dan Analisis Jalur untuk Riset Bisnis Menggunakan SPSS 29.0 & SMART-PLS 4.0" ini hadir sebagai buku referensi yang dapat dipergunakan oleh khalayak umum maupun oleh seluruh praktisi dalam dunia bisnis maupun dunia pendidikan. Buku ini sangat menarik karena memberikan konten yang cukup komprehensif untuk memperdalam keilmuan yang terkait dengan Transformasi data ordinal ke interval.

Buku ini terdiri dari 6 bab yang membahas mengenai:

Bab 1 Transformasi Data Ordinal ke Data Interval
Bab 2 Uji Validitas Dan Reliabilitas Data Penelitian
Bab 3 Uji Asumsi Klasik
Bab 4 Regresi Linier Sederhana dan Berganda
Bab 5 Analisis Jalur (*Path Analysis*) dengan SPSS
Bab 6 Analisis Jalur (*Path Analysis*) dengan SMART-PLS

Kemudian, kami ingin menyatakan apresiasi yang tulus kepada semua pihak yang telah memberikan dukungan dan bantuan mereka dalam penyelesaian buku ini. Semoga buku ini dapat memberikan manfaat yang berarti bagi pembaca dan pemangku kepentingan lainnya.

Hormat kami,

Penulis

## DAFTAR ISI

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# BAB 1

# TRANSFORMASI DATA ORDINAL KE DATA INTERVAL

## A. Pendahuluan

Transformasi data ordinal ke interval merupakan proses mengubah skala data dari urutan kategori (ordinal) menjadi kategori yang dapat diukur dengan jarak yang sebanding (interval). Hasil ini krusial dalam analisis statistik karena mendukung penggunaan teknik statistik yang memerlukan data dalam skala interval, seperti analisis regresi (*regression analysis*) dan analisis jalur (*Path Analysis*). Manfaat transformasi ini meliputi:

1. **Peningkatan analisis statistik**. Peningkatan analisis statistik merujuk pada upaya untuk meningkatkan kualitas dan kedalaman analisis data statistic. Peningkatan analisis statistik melibatkan penerapan metode dan teknik yang lebih canggih serta pemahaman yang lebih dalam terhadap data yang diproses. Beberapa cara untuk meningkatkan analisis statistik meliputi:
   a. Penggunaan model statistik yang lebih kompleks untuk menggali pola dan tren yang lebih halus dari data.
   b. Peningkatan penggunaan teknologi dan perangkat lunak analisis data untuk mengolah volume data yang besar dengan lebih efisien.
   c. Integrasi data dari berbagai sumber untuk mendapatkan pemahaman yang lebih holistik tentang fenomena yang diamati.

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# BAB 2

# UJI VALIDITAS DAN RELIABILITAS DATA PENELITIAN

## A. Pendahuluan

Uji validitas dan reliabilitas merupakan bagian penting dalam penelitian kuantitatif karena menentukan sejauh mana data yang dikumpulkan dapat diandalkan dan tepat. Validitas mengukur sejauh mana instrumen pengukuran benar-benar mengukur apa yang dimaksud, sedangkan reliabilitas mengukur seberapa konsisten instrumen pengukuran dalam memberikan hasil yang sama jika diulang. Untuk menentukan validitas, peneliti dapat menggunakan uji validitas konten, kriteria, dan konstruk. Sedangkan untuk reliabilitas, teknik yang umum digunakan adalah uji alpha Cronbach. Memastikan bahwa instrumen penelitian memiliki validitas dan reliabilitas yang tinggi sangat penting untuk menyakinkan pembaca atas keabsahan dan keandalan data yang diperoleh. Selain itu, memperkuat validitas dan reliabilitas juga akan meningkatkan kepercayaan diri peneliti terhadap hasil penelitiannya. (Iba & Wardhana, 2023; Razin & Feigh, 2023; Ahmed & Ishtiaq, 2021; Maul, 2017; Souza et al., 2017; Taherdoost, 2016; Heale & Twycross, 2015; Martinez et al., 2014; Sullivan, 2011; Kim, 2009; Bannigan & Watson, 2009; Kimberlin & Winterstein, 2008; Aiken, 1980).

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# BAB 3 UJI ASUMSI KLASIK

## A. Pendahuluan

Asumsi klasik (*classical assumption tests*), juga dikenal sebagai pengujian asumsi klasik, dalam analisis data kuantitatif mencakup prinsip-prinsip dasar yang penting untuk memastikan validitas dan keandalan analisis statistik. Asumsi-asumsi ini terdiri dari:

1. **Normalitas** adalah salah satu asumsi klasik penting dalam analisis data kuantitatif. Asumsi ini mengacu pada distribusi data yang terdistribusi secara normal. Untuk menguji normalitas data, uji statistik seperti uji normalitas Kolmogorov-Smirnov atau uji Shapiro-Wilk dapat digunakan. Jika data tidak terdistribusi secara normal, beberapa transformasi data mungkin diperlukan sebelum melakukan analisis lebih lanjut.
2. **Homogenitas** mengacu pada keseragaman variabilitas di antara kelompok-kelompok data. Asumsi homogenitas varians perlu dipenuhi untuk analisis varian dan sebagian besar uji parametrik lainnya. Uji Levene atau uji Bartlett sering digunakan untuk menguji homogenitas varians. Jika asumsi ini tidak terpenuhi, teknik analisis alternatif seperti analisis varian yang tidak parametrik mungkin lebih sesuai.
3. **Asumsi independensi** mengasumsikan bahwa observasi atau data yang diamati saling bebas atau tidak saling terkait. Asumsi ini sering terkait dengan analisis regresi dan uji hipotesis lainnya. Untuk memastikan independensi data, perlu diperhatikan prosedur pengambilan sampel, serta

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# BAB 4 REGRESI LINIER SEDERHANA DAN BERGANDA

## A. Pendahuluan

Regresi dalam penelitian kuantitatif adalah metode statistik yang digunakan untuk memeriksa hubungan antara variabel dependen dan independen. Metode ini membantu peneliti untuk memahami sejauh mana variabel independen mempengaruhi variabel dependen. Dalam analisis regresi, terdapat dua jenis variabel: variabel dependen, yang nilainya ingin kita prediksi, dan variabel independen, yang digunakan untuk memprediksi nilai variabel dependen. Metode regresi dapat digunakan untuk membuat prediksi, mengevaluasi hubungan sebab-akibat, dan mengidentifikasi pengaruh variabel independen terhadap variabel dependen. Dalam penelitian kuantitatif, analisis regresi sering digunakan untuk menguji hipotesis dan memahami pola hubungan antar variabel. Selain itu, metode regresi juga dapat memberikan wawasan yang berharga dalam membuat keputusan dan perencanaan di berbagai bidang studi, seperti ekonomi, sosiologi, dan ilmu politik. (Abdullah & Mia, 2023; Iba &Wardhana, 2023; Mortazavi, 2023; Ghosh & Chakraborty, 2022; Wardhana et al, 2022; Sadeghi et al., 2021; Sial, 2021; Xia, 2021; Boutchich, 2020; Sylva & Dan-Albert, 2020; Sugiyono, 2019; Jeske & Myhre, 2018; Armstrong & Green, 2017; Patten & Newhart, 2017; Fetaji et al., 2016; Memari et al., 2016).

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# BAB 5

# ANALISIS JALUR (*PATH ANALYSIS*) DENGAN SPSS

## A. Pendahuluan

Analisis jalur adalah metode statistik yang digunakan untuk mengidentifikasi hubungan sebab-akibat antara dua atau lebih variabel. Analisis jalur sering digunakan dalam berbagai bidang seperti ilmu sosial, ilmu politik, manajemen, dan psikologi. Metode ini membantu para peneliti dan analis untuk memahami sejauh mana variabel satu mempengaruhi variabel lainnya. Dengan menggunakan analisis jalur, kita dapat menentukan hubungan kausal antara variabel-variabel tersebut. Langkah pertama dalam analisis jalur adalah menentukan model konseptual yang menggambarkan hubungan antara variabel-variabel yang diamati. Setelah itu, dilakukan pengumpulan data yang relevan untuk menguji model tersebut. Data tersebut kemudian dianalisis menggunakan teknik regresi untuk menentukan seberapa kuat hubungan antar variabel. Hasil dari analisis jalur dapat memberikan pemahaman yang mendalam terkait hubungan sebab-akibat antara variabel-variabel yang diteliti. Dengan demikian, metode ini menjadi sangat berguna dalam menyelidiki hubungan kompleks di antara berbagai fenomena yang diamati. (Iba & Wardhana, 2023; Masudin et al., 2021; Dhaniarti et al., 2019; Schooley et al., 2018Chen & Pearl, 2014; Curry et al., 2008; Palermo et al., 2007; Robinson & Meier, 2006; Streiner, 2005; Ford & Ferguson, 2004; Grandey & Cropanzano, 1999).

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# BAB 6

# ANALISIS JALUR (*PATH ANALYSIS*) DENGAN SMART-PLS

## A. Pendahuluan

Analisis Jalur (*Path Analysis*) adalah metode statistik yang digunakan untuk mengidentifikasi dan menganalisis hubungan kausal antara variabel-variabel dalam sebuah model. Smart PLS adalah salah satu alat yang dapat digunakan untuk melakukan analisis jalur. Dengan Smart PLS, Peneliti dapat memodelkan hubungan antar variabel laten dan menguji sejauh mana hubungan tersebut signifikan. Analisis jalur dengan Smart PLS memungkinkan Peneliti untuk memahami hubungan antar variabel, menguji hipotesis, dan mengidentifikasi faktor-faktor yang berkontribusi terhadap hasil yang diamati. Dengan menggunakan alat ini, Peneliti dapat membuat model yang memperkirakan dampak variabel-variabel laten dan menguji sejauh mana model tersebut sesuai dengan data Peneliti. (Iba &Wardhana, 2023; Osman et al., 2023; Hair et al., 2021; Roldán & Sánchez-Franco, 2015; Dong et al., 2015; Hair et al., 2013; Peng & Lai, 2012; Zhao et al., 2008).

## B. Konsep Analisis Jalur (*Path Analysis*) dengan SMART-PLS

Analisis verivikatif bertujuan untuk menentukan sejauh mana variabel independen mempengaruhi variabel dependen dan menguji hipotesis terkait. Dalam penelitian ini, metode analisis jalur menggunakan SMART-PLS versi 4.0 digunakan untuk tujuan verifikasi. Pemilihan analisis jalur didasarkan pada kerangka pemikiran penelitian yang menunjukkan kecocokan paradigma dengan metode ini.

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REPUBLIK INDONESIA
KEMENTERIAN HUKUM DAN HAK ASASI MANUSIA

# SURAT PENCATATAN CIPTAAN

Dalam rangka pelindungan ciptaan di bidang ilmu pengetahuan, seni dan sastra berdasarkan Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta, dengan ini menerangkan:

| | | |
|---|---|---|
| Nomor dan tanggal permohonan | : | EC00202462011, 8 Juli 2024 |
| **Pencipta** | | |
| Nama | : | **Dr. Zainuddin Iba, S.E., M.M. dan Aditya Wardhana** |
| Alamat | : | Jl. Cendana No. 9, Kel. Lancang Garam, Kec. Banda Sakti, Kota Lhokseumawe, Aceh, Banda Sakti, Lhokseumawe, Di Aceh, 24351 |
| Kewarganegaraan | : | Indonesia |
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| Kewarganegaraan | : | Indonesia |
| Jenis Ciptaan | : | **Buku** |
| Judul Ciptaan | : | **Analisis Regresi Dan Analisis Jalur Untuk Riset Bisnis Menggunakan SPSS 29.0 & SMART-PLS 4.0** |
| Tanggal dan tempat diumumkan untuk pertama kali di wilayah Indonesia atau di luar wilayah Indonesia | : | 29 Juni 2024, di Purbalingga |
| Jangka waktu pelindungan | : | Berlaku selama hidup Pencipta dan terus berlangsung selama 70 (tujuh puluh) tahun setelah Pencipta meninggal dunia, terhitung mulai tanggal 1 Januari tahun berikutnya. |
| Nomor pencatatan | : | 000637366 |

adalah benar berdasarkan keterangan yang diberikan oleh Pemohon.
Surat Pencatatan Hak Cipta atau produk Hak terkait ini sesuai dengan Pasal 72 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta.

a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA
DIREKTUR JENDERAL KEKAYAAN INTELEKTUAL
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