Biostatistics 1

Hypothesis Analysis

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Hypothesis

Statements, or assumptions temporary made and will be tested for the truth of those statements or assumptions.

Statements and assumptions begin to be built from:
   a. Title
   b. Objective
   c. Conceptual framework

Step of Hypothesis

1. Determine the type of hypothesis
2. Determine the variables to be tested
3. Determine the variable data scale
4. Determine in pairs or in pairs
5. Determine the number of groups

Title & Objective

Description
Relationship
Influence
Difference
Analysis
Effectiveness
Role
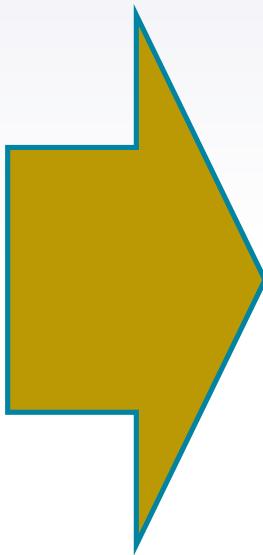
Identify
Knowing
Analyze

Conceptual Framework - Consistency Between Concept

Knowledge Development	Title	Objective	Statistic Test	Test Type
EKSPLORASI	IDENTIFIKASI	MENGETAHUI MEMPELAJARI	DESKRIPTIF	Mean, Median, Mode, SD, Percentile, Variant
DESKRIPSI	PERBEDAAN	MEMPELAJARI MENGKAJI	UJI BEDA	X2, T-TEST, Anova, Wilcoxon, McNemar, U-ManWhitney
EKSPLANASI	HUBUNGAN	MEMPELAJARI MENGKAJI MEMBUKTIKAN	UJI KORELASI	Pearson, Spearman, Kendall, C-Coeff
EKSPLANASI PREDIKSI	PENGARUH	MENGKAJI MEMBUKTIKAN	UJI REGRESI	Regresi Linear, Regresi Logistik, Regresi Ordinal
	SEBAB - AKIBAT	MEMBUKTIKAN MENEMUKAN	UJI REGRESI	**Idem Regresi + Syarat Metodologis**

Type of Statistic Test

Sample size & randomization

1. **SPSS**
2. **SEM**
3. **STATA**

Advantages
Deficiency

Tools !!!

SPSS (Statistical Product and Service Solutions)

- **Familiar & Simple**

- **Univariate, Bivariate & Multivariate**

- **Time series data → less relevant**

- **Cannot analyze the effect of independent variables on the dependent variable through other independent variables**

- **Cannot measure constructs / indicators that cannot be measured directly**

- **Cannot analyze the relationship of all variables at one time**

SEM (Structural Equation Modelling)

- **Time series data → relevant**
- **Can be analyze the effect of independent variables on the dependent variable through other independent variables**
- **Can be measure constructs / indicators that cannot be measured directly**
- **Can be analyze the relationship of all variables at one time**

- **Cannot analyze descriptive (univariate)**
- **More complex**
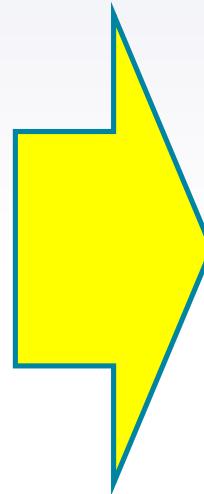
Bivariate Multivariate

SEM (Structural Equation Modelling)

Lisrel
AmoS
- ➢ **Numeric Data**
- ➢ **Large sample**

Smart PLS
- ➢ **Ordinal Data**
- ➢ **Small sample**
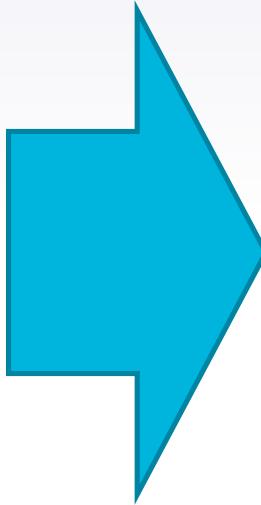
- • **Measurement models**

- • **Structural models**

Faktor individu peserta:
1. Word of mouth
2. Kebutuhan medis
3. Pengalaman masa lalu

H4

H5

H6

Kepuasan peserta BPJS Kesehatan:
 Aspek Biologis:
a. Edukasi aspek klinis
b. Pencegahan aspek klinis
c. Informasi pengobatan
d. Informasi komplikasi
 Aspek Psikis
  Edukasi adaptasi psikis
  Pencegahan kecemasan
  Pendampingan pengobatan
  Motivasi kesembuhan
 Aspek Sosial
  Edukasi fungsi sosial
  Pencegahan perubahan fungsi sosial
  Adaptasi fungsi sosial
  Pemulihan fungsi sosial

Komitmen organisasi:
1. Komitmen afektif
2. Komitmen kontinuan
3. Komitmen normatif

H2

H3

Loyalitas peserta BPJS Kesehatan:
 Pemanfaatan pada kasus sama
 Pemanfaatan pada kasus berbeda
 Rekomendasi pelayanan FKTP

H1

Faktor Personal:
Jenis kelamin
Usia
Masa kerja dokter
Waktu kerjasama BPJS
Status kepegawaian
Pelatihan holistik komprehensif
Pelatihan program BPJS

Faktor Organisasi:
Dokumen visi, misi dan tujuan FKTP
Standar pelayanan kesehatan
Sistem *reward*

Faktor Non Organisasi:
Kebijakan BPJS Kesehatan
Peluang kerja di luar FKTP
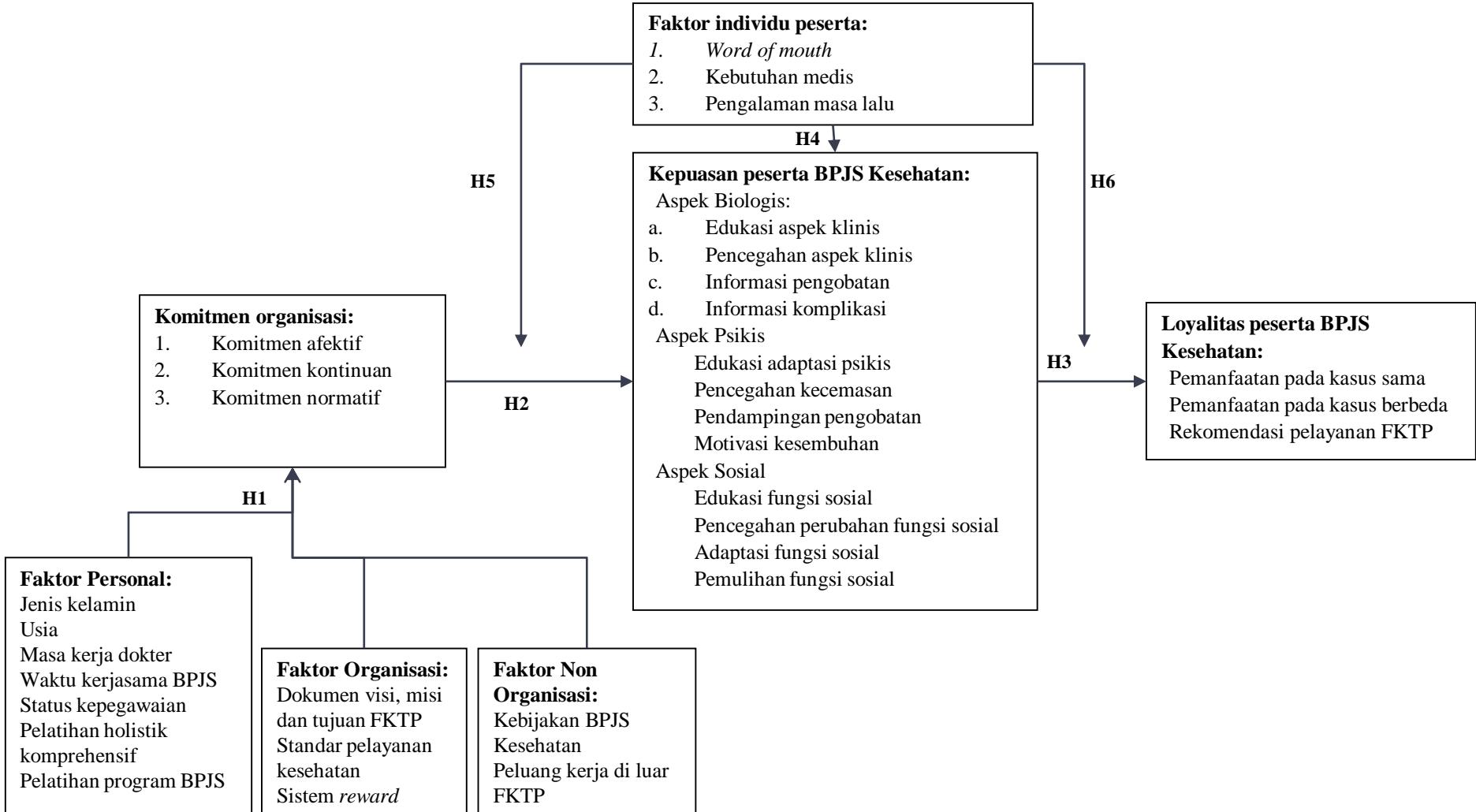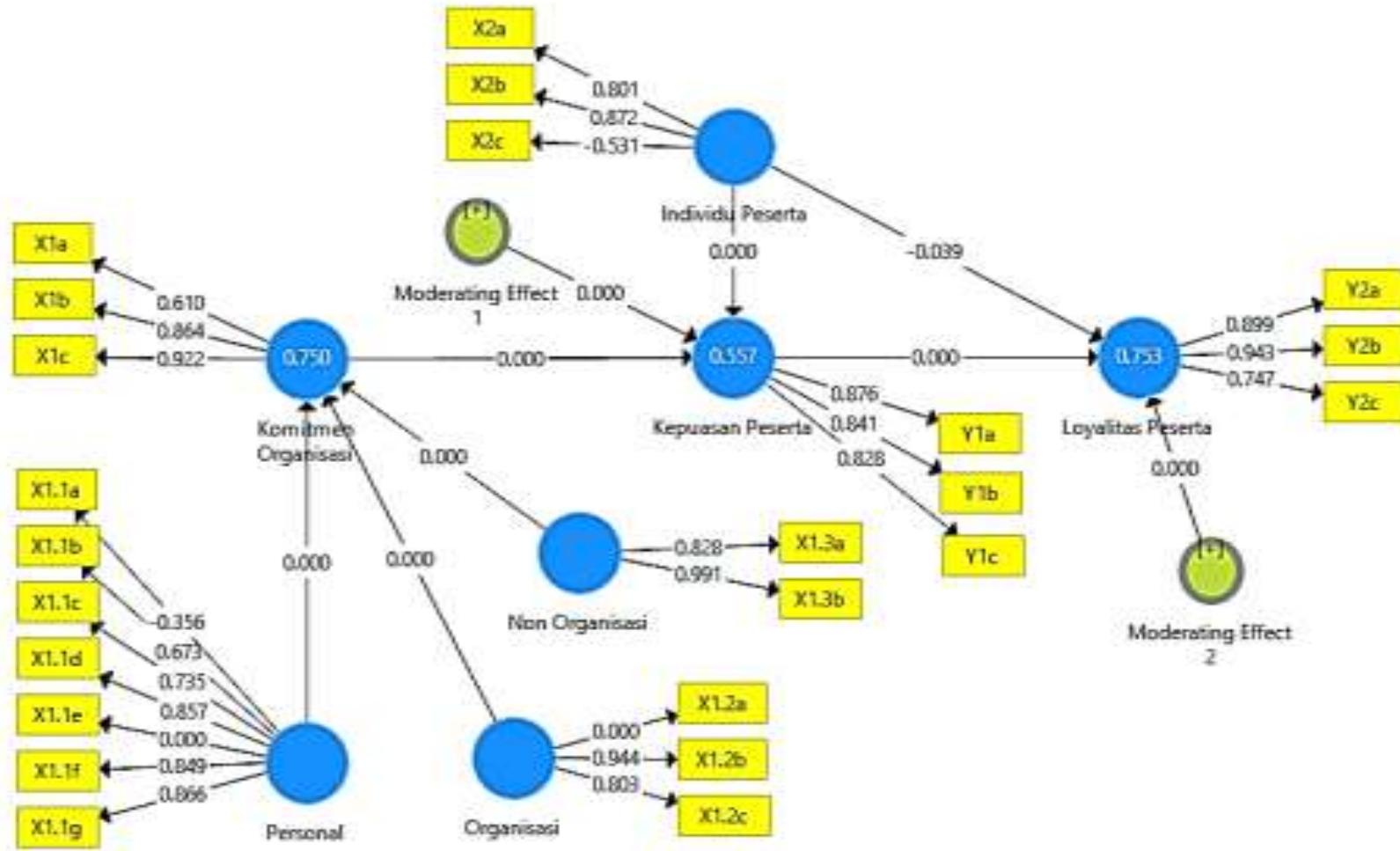
STATA

- **Univariate, bivariate, multivariate analysis**
- **Analysis on non-randomized samples**

- **Operational difficult because typing commands**

Resume

Selection of hypothesis analysis tools based on :

    1. Objectives and conceptual framework

    2. Sample size and randomization

    3. Data obtained

THANKS!