

Contact:

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Perspective of success:

- Keep walking, you will come.
- ♣ It is better to deserve honors and not have them than to have them and not deserve them.
- Doing the same thing over and over again and expecting different results.
- There is a will, there is a way.

Ambition:

Become a leading expert in R, SQL data analyst in Vietnam.

Career goals:

- Proficiency in all statistical methods R, SQL related work.
- Study and translate the latest statistical methods in the world.
- Programme my own statistical software for Vietnam via R and C #, C ++, JAVA.

Personal information:

♣ Birthday: 09/12/1983

♣ Address: No. 36, Tu Mo Street, Ward 7, Go Vap District, Ho Chi Minh City, Vietnam.

Education:

- ♣ 2008: Graduated from Faculty of Information Technology - University of Science.
- ♣ 2008 now: Studies in statistics, data science, data analysis, SQL, Java, C++, C# programming ... especially R.
- 2015: Master of Business Administration, University of Finance & Marketing.

Skill:

- Leader.
- Creation.
- Negotiation, communication.
- Work independently / group
- Adapting to high pressure work.
- Recruitment and management skills.
- Training skills.
- Business, customer, market analysis skills

Work experience:

Experience in the field of statistics, data analysis, data science, programming, R, sales, sales management and marketing:

- Established Tin Nghia Company Limited (2008-2010)

- ♣ Identify opportunities from the market with dozens of industrial parks, hundreds of companies and hundreds of thousands of workers in Thuan An, Binh Duong. This is a market that has a great demand for air travel.
- ♣ Since then, we have built and developed a company that sells retail air tickets to companies and employees in Binh Duong, agents at all levels. Ensure sales> 4 billion VND / month.
- Establish a loyal customer database and maintain steady growth.

Sales Manager of En Viet Trading & Services Joint Stock Company (2010-2012)

- Recruiting and training sales staff.
- Planning for the sales team.
- ♣ Planning and developing, expanding agent distribution system and major customers in Ho Chi Minh City and Binh Duong.
- ♣ Monitor the sales team in loyal customer care.
- Develop and implement programs to ensure sales targets.
- Evaluate, analyze and solve crises and risks.
- Participate in brand building and development for the company.
 http://vemaybaytructuyen.com/

- Online customer development for Microheli Co., Ltd. (2012-2013)

- Search for customer database sources using internal software system.
- ♣ Analyze, evaluate, and select to develop new customers.
- Supervise the implementation of the order, payment and delivery to customers.
 http://heliwow.com/

- Sales Manager of Viet Tra Co., Ltd. Korea (2013-now)
 - Planning for the sales team.
 - ♣ Planning and developing, expanding agent distribution network and key customers in South Vietnam.
 - Supervise the sales team in customer care activities.
 - ♣ Develop and implement programs to ensure sales targets.
- Teaching, researching and analyzing data of projects associated with University of Finance and Marketing, Bac Lieu University, GIMO Co. Ltd, THINH GIA HUY Co.Ltd, Import Export Company 2-9, Department of Culture, Sports and Tourism of Binh Phuoc, Global Petroleum Bank, Supermarket Coop ... (2013-now)
- Project "Buying laptop behavior of students in Ho Chi Minh City"
 - Data analysis: descriptive statistics, plotting, Guttman's lambda 3, EFA with ML,
 CFA, SEM with SPSS and AMOS software.
- ♣ Project "Measuring the perceived value of voluntary health insurance in District 3"
 - Data analysis: descriptive statistics, plotting, coefficient Cronbach 'Alpha, PCA, correlation, regression with SPSS software.
- ♣ Project "Factors affecting the intention to choose Ca Mau City to work for students of Bac Lieu University after graduation"
 - Data analysis: Assumptions of standard distribution, Histogram plot, Cronbach 'Alpha, PCA, correlation, regression, test hypothesis with SPSS software.
- ♣ Project "Factors influencing customers' decision to buy meat at the supermarket chain Co.opmart TP. Ho Chi Minh"
 - Data analysis: Histogram plot, Cronbach 'Alpha, Principal Component Analysis, correlation analysis, multivariate regression analysis with SPSS software.

- Project "Factors Affecting Employee Loyalty for Enterprises at 2-9 Dak Lak Import Export Company Limited"
 - Data analysis: Assumptions of standard distribution, Histogram plot, Cronbach 'Alpha, PCA, Correlation, Regression, ANOVA, hypothesis testing with SPSS software.
- ♣ Project "Impacting the image of Binh Phuoc destination to the loyalty of visitors"
 - Data analysis: Assumptions of normal distribution, Histogram plot, Cronbach 'Alpha, PCA, correlation, regression, ANOVA, test of residual assumptions with SPSS software.
- ♣ Project "Factors affecting staff loyalty to the enterprise at THINH GIA HUY CO., LTD"
 - Data Analysis: Standard Distribution Test, Histogram, Cronbach 'Alpha, PCA, Correlation, Regression, ANOVA, test of residual assumptions with SPSS software.
- ♣ Project "Perception value of customers at Sai Gon Branch when using ATM card of Global Petroleum Commercial Bank"
 - Data analysis: Descriptive statistics, Guttmann's lambda 3, Chi-square statistics,
 Bartlett's test, KMO, EFA with ML, CFA, SEM with SPSS and AMOS.
- Project "Factors Influencing Student's Smartphone Buying Decision"
 - Data analysis: descriptive statistics, Guttman's lambda 3, Chi-square statistics,
 Bartlett's test, KMO, EFA with ML, CFA, SEM with Stata software.

Experience with R:

- ♣ Bartlett Test and calculate the KMO coefficient: cortest.bartlett() in William Revelle's psych package. The paf() function in Michael Chajewski's rela package.
- Determine the number of factors retained: nScree() function in Gilles Raiche' nFactors package.
- ♣ Find the appropriate number of factors: *pca()* function in the *stats* package to do PCA and then plot the screeplot graph through the *screeplot()* function to find the appropriate number of factors.
- ♣ Factor analysis: factanal() in the stats package with promax rotation.
- ♣ McDonald's Omega coefficient rating scale (The latest reliability method, first used in Vietnam): omega() function for calculating McDonald's Omega in William Revelle's psych package.
- ♣ Total Variable Correlation Coefficient: item.total() function in Paul Bliese's multilevel package.

♣ CFA:

- *specify.model()* function in the *sem* package for transmission to the measurement model.
- sem() function in the sem package of John Fox for CFA.
- summary() function in the base package to display the results of the analysis.
- standardizedCourific() function in the John Fox' sem package to display the normalization coefficient.

SEM analysis for the model:

- lavaan :: sem () for SEM analysis.
- lavaan :: summary() to display normalized and non-normalized results
- lavaan::fitMeasures() to return all the fit measures
- lavaan::modindices() to display modification indices
- subset() in the base package to display the results that need to modify the model.

Using Bootstrap:

- lavaan::fitMeasures() and lavaan::bootstrapLavaan() function.
- Show model:
 - semPaths() function in semPlot package

- Multi-group analysis:
 - lavaan :: sem () with the wishart likelihood approach
- Regression analysis:
 - *lm()* function
- **ANOVA**
 - Im() and anova() fuction
- Logistic regression analysis:
 - glm() and predict() function
- PCA:
 - pca() and princomp() function
- Diagram drawing:
 - Histogram: his() function
 - boxplot() function
 - Scatter: *plot()* function
 - Multivariate correlation diagram: cbind() and paire.pannels() in the psych package.
- Correlation coefficients:
 - Pesrson: *cor()*
 - Spearman: cor.test(x,y,method="spearman")
 - Kendall: cor.test(x,y,method="kendall")
- ♣ Statistical description analysis:
 - describe() function in William Revelle's psych package
 - Standard distribution tests: shapiro.test () function.
 - T-test: *t.test()* function
 - Variance test: var.test()
 - Wilcoxon test: wilcox.test()
 - Proportional test: prop.test()
 - Chi-square test: *chisq.test()*
 - Fisher test: fisher.test()
- Basic analysis: A series of other fundamental analysis ...

- Some programming R codes:

♣ Input function from Excel file:

```
# Step 1. Save Excel file with .CSV extension

# Step 2. set working directory

# Default: "C:/Users/Administrator/Desktop"
nhapLieu <-
function(duongDan="C:/Users/Administrator/Desktop/HANGLV",tenFile="Trung
Gian.xlsx")

{
    library(rJava)
    library(xlsxjars)
    library(xlsx)

setwd(duongDan)
    duLieu=read.xlsx(tenFile, 1)
    attach(duLieu)
    return(data.frame(duLieu))
}
```

♣ This function returns an object that matches the correlation coefficient interval

```
traVeDoiTuongPhuHop <- function(doiTuong1,
heSoTuongQuan1,heSoTuongQuan2)
{
 doiTuong2 <- data.frame(doiTuong1)</pre>
 heSoTuongQuan=cor(doiTuong2,doiTuong1)
 n <- nrow(doiTuong2)</pre>
 while(heSoTuongQuan < heSoTuongQuan1 | heSoTuongQuan >
heSoTuongQuan2)
 {
    # Get 5 random positions
    temp <- sample(1:n, 5, replace=F)
    temp1 <- data.frame(temp)</pre>
    # Get 5 random values from 1 to 5
    temp3 <- sample(1:5, 5, replace=T)
    temp4 <- data.frame(temp3)
    doiTuong2[temp1[1,1],1] <- temp4[1,1]</pre>
    doiTuong2[temp1[2,1],1] <- temp4[2,1]
    doiTuong2[temp1[3,1],1] <- temp4[3,1]</pre>
    doiTuong2[temp1[4,1],1] <- temp4[4,1]
    doiTuong2[temp1[5,1],1] <- temp4[5,1]</pre>
    heSoTuongQuan=cor(doiTuong2,doiTuong1)
 }
  return(doiTuong2)
 }
```

♣ This function returns a frame of interger numbers

```
traVeSoNguyen <- function(duLieu_f)</pre>
{
   duLieu_f <- data.frame(duLieu_f)</pre>
   duLieu2<-duLieu_f
   nDong <- nrow(duLieu_f)</pre>
   nCot <- ncol(duLieu_f)</pre>
   for(i in 1:nDong)
    for(j in 1:nCot)
    {
      if(duLieu_f[i,j] <= 1.8)
      {duLieu2[i,j] <- 1 }
      if(1.8 < duLieu_f[i,j] & duLieu_f[i,j] <= 2.6)
      \{duLieu2[i,j] <- 2\}
      if(2.6 < duLieu_f[i,j] & duLieu_f[i,j] <= 3.4)
      \{duLieu2[i,j] <- 3\}
      if(3.4 < duLieu_f[i,j] & duLieu_f[i,j] <= 4.2)
      \{duLieu2[i,j] <-4 \}
      if(4.2 <duLieu_f[i,j])</pre>
      {duLieu2[i,j] <- 5 }
    }
   return(duLieu2)
```

♣ This function generates the number of observable variables

```
taoRaSoLuongBienQuanSat <- function(doiTuong,n=3)
{
  temp <- data.frame(doiTuong)
  for(i in 2:n)
  {doiTuong2 <- data.frame(doiTuong,temp)
    doiTuong <- doiTuong2 }
  return(doiTuong)
}</pre>
```

♣ This function edits random numbers

```
suaSoNgauNhien <- function(doiTuong1, soLuong = 10)
{
    doiTuong2 <- data.frame(doiTuong1)
    n <- nrow(doiTuong2)
    m <- ncol(doiTuong2)
    for(j in 1:m)
    {
        for(i in 1:soLuong)
        {
            temp <- sample(1:n, 1, replace=F)
            temp3 <- sample(1:5, 1, replace=T)
            doiTuong2[temp,j] <- temp3
        }
    }
    return(doiTuong2)
}</pre>
```

- Data analysis project with R: "Smartphone purchase behavior of students in Ho Chi Minh City"
- ♣ Qualitative research: Combining theoretical background, previous research models with group discussion techniques (group discussion with 3 groups of students from different schools). From this result, build a formal questionnaire.
- ♣ Quantitative research: interviewed 600 students from colleges in Ho Chi Minh City, data processing and test model (EFA, Scale Reliability, CFA, SEM, Bootstrap, multigroup). With the support of packages on software R.
- Processing methods: EFA, McDonald's Omega Reliability, CFA, SEM, Bootstrap, Multi-group.
- R Code has done on the project:

```
1. Run imput function

nhapLieu <- function(duongDan="C:/Users/DELL/Desktop/LUAN VAN TAM",tenFile="DuLieu.xlsx")

{
    library(rJava)
    library(xlsxjars)
    library(xlsx)
    setwd(duongDan)
    duLieu=read.xlsx(tenFile, 1)
    attach(duLieu)
    return(data.frame(duLieu))
}

dt1 <- nhapLieu()
```

2. Taking quantitative variables

```
dt2 <- dt1[,c(1:25)]
```

```
3. Describe the observed variables
library(psych)
describe(dt2)
4. Bartlett Test
library(psych)
cortest.bartlett(dt2)
5. Calculate the KMO coefficient
library(rela)
paf(as.matrix(dt2))
6. Calculate the number of factors retained
6a. Using nScree() function
library(nFactors)
ev <- eigen(cor(dt2)) # Lay igenvalues
ap <- parallel(subject=nrow(dt2),var=ncol(dt2),rep=100,cent=.05,model=
"factors")
nS <- nScree(x=ev$values, aparallel=ap$eigen$qevpea)
plotnScree(nS)
nS
6b.Using pca() function
library(stats)
pca <- princomp(dt2, scores= TRUE, cor= TRUE)</pre>
screeplot(pca,type="line", main="Scree Plot")
7. EFA first
library(stats)
```

factanal(x=dt2, factors=6, rotation = "promax")

```
8. EFA second remove TimKiem4
```

```
library(stats)
```

```
dt3 <- dt2[,c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,19,20,21,22,23,24,25)] factanal(x=dt3, factors=6, rotation = "promax")
```

9. EFA third remove NhuCau6

```
library(stats)
```

```
dt4 <- dt2[,c(1,2,3,4,5,6,7,8,9,11,12,13,14,15,16,18,19,20,21,22,23,24,25)] factanal(x=dt4, factors=6, rotation = "promax")
```

10. EFA fourth remove NhuCau5

library(stats)

```
dt5 <- dt2[,c(1,2,3,4,5,6,7,8,11,12,13,14,15,16,18,19,20,21,22,23,24,25)] factanal(x=dt5, factors=6, rotation = "promax")
```

11. Reliability of the scales

```
library(psych)
```

marketing \leftarrow dt2[,c(1:4)]

moiTruong <- dt2[,c(11:13)]

nhuCau <- dt2[,c(5:8)]

timKiem <- dt2[,c(14:16)]

yDinh <- dt2[,c(18:20)]

quyetDinh <- dt2[,c(21:25)]

omega(m=marketing, nFactors=3, fm = "ml")

omega(m=moiTruong, nFactors=1, fm = "ml")

omega(m=nhuCau, nFactors=2, fm = "ml")

omega(m=timKiem, nFactors=1, fm = "ml")

omega(m=yDinh, nFactors=1, fm = "ml")

omega(m=quyetDinh, nFactors=3, fm = "ml")

```
12. CFA
library(sem)
moHinh <- specify.model()
tuongQuan <- cov(dt5)
n <- nrow(dt5)
CFA1 <- sem(moHinh, tuongQuan, n)
summary(CFA1, conf.level=.90,fit.indices=c("GFI", "AGFI", "RMSEA", "NFI",
"NNFI", "CFI", "RNI", "IFI", "SRMR"))
standardizedCoefficients(CFA1)
13. Display CFA model
library(semPlot)
semPaths(CFA1, "std", color = list(lat = rgb(238, 213, 210, maxColorValue =
255), man = rgb(142, 229, 238, maxColorValue = 255)), mar = c(10, 5, 10, 5))
14. SEM first
library(lavaan)
moHinhSEM1 <- '
MARKETING =~ Marketing1 + Marketing2 + Marketing3 + Marketing4
QUYETDINH =~ QuyetDinh1 + QuyetDinh2 + QuyetDinh3 + QuyetDinh4 +
QuyetDinh5
NHUCAU =~ NhuCau1 + NhuCau2 + NhuCau3 + NhuCau4
YDINH =~ YDinh1 + YDinh2 + YDinh3
MOITRUONG =~ MoiTruong1 + MoiTruong2 + MoiTruong3
TIMKIEM =~ TimKiem1 + TimKiem2 +TimKiem3
NHUCAU ~ MARKETING + MOITRUONG
TIMKIEM ~ NHUCAU
YDINH ~ NHUCAU +TIMKIEM
QUYETDINH ~ YDINH
```

```
SEM1 <- lavaan::sem(moHinhSEM1, data = dt5, fixed.x=FALSE)
lavaan::fitMeasures(SEM1, c("chisq", "df", "pvalue", "cfi", "gfi", "agfi",
"srmr","rmsea"))
lavaan::summary(SEM1, standardized=TRUE, rsq = TRUE)
15. modification model
library(lavaan)
MI1 <- lavaan::modindices(SEM1)
subset(MI1, mi>20)
16. SEM second
moHinhSEM2 <-'
MARKETING =~ Marketing1 + Marketing2 + Marketing3 + Marketing4
QUYETDINH =~ QuyetDinh1 + QuyetDinh2 + QuyetDinh3 + QuyetDinh4 +
QuyetDinh5
NHUCAU =~ NhuCau1 + NhuCau2 + NhuCau3 + NhuCau4
YDINH =~ YDinh1 + YDinh2 + YDinh3
MOITRUONG =~ MoiTruong1 + MoiTruong2 + MoiTruong3
TIMKIEM =~ TimKiem1 + TimKiem2 +TimKiem3
NHUCAU ~ MARKETING + MOITRUONG
TIMKIEM ~ NHUCAU
YDINH ~ TIMKIEM
QUYETDINH ~ YDINH
Marketing1 ~~ Marketing4
SEM2 <- lavaan::sem(moHinhSEM2, data = dt5, fixed.x=FALSE)
lavaan::fitMeasures(SEM2, c("chisq","df", "pvalue", "cfi", "gfi", "agfi",
"srmr","rmsea"))
lavaan::summary(SEM2, standardized=TRUE, rsg = TRUE)
```

17. Using bootstrap technique

```
T.orig <- lavaan::fitMeasures(SEM2, "chisg")
T.boot <- lavaan::bootstrapLavaan(SEM2, R=50,
type="bollen.stine",FUN=lavaan::fitMeasures, fit.measures="chisq")
pvalue.boot <- length(which(T.boot > T.orig))/length(T.boot)
pvalue.boot
18. Display SEM
library(semPlot)
semPaths(SEM2, "std", color = list(lat = rgb(245, 213, 118, maxColorValue =
255), man = rgb(155, 153, 175, maxColorValue = 255)), mar = c(10, 5, 10, 5)
semPaths(SEM2, "std", color = list(lat = rgb(238, 213, 210, maxColorValue =
255), man = rgb(142, 229, 238, maxColorValue = 255)), mar = c(10, 5, 10, 5)
semPaths(SEM2, "std", color = list(lat = rgb(245, 253, 118, maxColorValue =
255), man = rgb(155, 253, 175, maxColorValue = 255)), mar = c(10, 5, 10, 5))
19. Multi-group analysis
library(lavaan)
model.s <- '
MARKETING =~ Marketing1 + Marketing2 + Marketing3 + Marketing4
QUYETDINH =~ QuyetDinh1 + QuyetDinh2 + QuyetDinh3 + QuyetDinh4 +
QuyetDinh5
NHUCAU =~ NhuCau1 + NhuCau2 + NhuCau3 + NhuCau4
         =~ YDinh1 + YDinh2 + YDinh3
YDINH
MOITRUONG =~ MoiTruong1 + MoiTruong2 + MoiTruong3
TIMKIEM =~ TimKiem1 + TimKiem2 +TimKiem3
NHUCAU ~ MARKETING + MOITRUONG
Marketing1 ~~ Marketing4
```

dtDaNhom <-

dt1[,c(1,2,3,4,5,6,7,8,11,12,13,14,15,16,18,19,20,21,22,23,24,25,27)]

SEM_KB <- lavaan::sem(model.s, data=dtDaNhom, group="GioiTinh")</pre>

lavaan::summary(SEM_KB)

SEM_BB <- lavaan::sem(model.s, data=dtDaNhom, group="GioiTinh",

group.equal="regressions")

lavaan::summary(SEM_BB)

20. Transmit to the CFA model at the analytical step 12

MARKETING -> Marketing1, ma_lam1, NA

MARKETING -> Marketing2, ma_lam2, NA

MARKETING -> Marketing3, ma_lam3, NA

MARKETING -> Marketing4, ma_lam4, NA

QUYETDINH -> QuyetDinh1, qd_lam1, NA

QUYETDINH -> QuyetDinh2, qd_lam2, NA

QUYETDINH -> QuyetDinh3, qd_lam3, NA

QUYETDINH -> QuyetDinh4, qd_lam4, NA

QUYETDINH -> QuyetDinh5, qd_lam5, NA

NHUCAU -> NhuCau1, nc_lam1, NA

NHUCAU -> NhuCau2, nc_lam2, NA

NHUCAU -> NhuCau3, nc_lam3, NA

NHUCAU -> NhuCau4, nc_lam4, NA

YDINH -> YDinh1, yd_lam1, NA

YDINH -> YDinh2, yd_lam2, NA

YDINH -> YDinh3, yd_lam3, NA

MOITRUONG -> MoiTruong1, mt_lam1, NA

MOITRUONG -> MoiTruong2, mt_lam2, NA

MOITRUONG -> MoiTruong3, mt_lam3, NA

TIMKIEM -> TimKiem1, tk_lam1, NA

TIMKIEM -> TimKiem2, tk lam2, NA

TIMKIEM -> TimKiem3, tk_lam3, NA

Marketing1 <-> Marketing1, e1, NA

Marketing2 <-> Marketing2, e2, NA

Marketing3 <-> Marketing3, e3, NA

Marketing4 <-> Marketing4, e4, NA

QuyetDinh1 <-> QuyetDinh1, e5, NA

QuyetDinh2 <-> QuyetDinh2, e6, NA

QuyetDinh3 <-> QuyetDinh3, e7, NA

QuyetDinh4 <-> QuyetDinh4, e8, NA

QuyetDinh5 <-> QuyetDinh5, e9, NA

NhuCau1 <-> NhuCau1, e10, NA

NhuCau2 <-> NhuCau2, e11, NA

NhuCau3 <-> NhuCau3, e12, NA

NhuCau4 <-> NhuCau4, e13, NA

YDinh1 <-> YDinh1, e14, NA

YDinh2 <-> YDinh2, e15, NA

YDinh3 <-> YDinh3, e16, NA

MoiTruong1 <-> MoiTruong1, e17, NA

MoiTruong2 <-> MoiTruong2, e18, NA

MoiTruong3 <-> MoiTruong3, e19, NA

TimKiem1 <-> TimKiem1, e20, NA

TimKiem2 <-> TimKiem2, e21, NA

TimKiem3 <-> TimKiem3, e22, NA

MARKETING <-> MARKETING, NA, 1

QUYETDINH <-> QUYETDINH, NA, 1

NHUCAU <-> NHUCAU, NA, 1

YDINH <-> YDINH, NA, 1

MOITRUONG <-> MOITRUONG, NA, 1

TIMKIEM <-> TIMKIEM, NA, 1

MARKETING <-> QUYETDINH, M_Q, NA

MARKETING <-> NHUCAU, M_N, NA

MARKETING <-> YDINH, M_Y, NA

MARKETING <-> TIMKIEM, M_T, NA

MARKETING <-> MOITRUONG, M_M, NA

QUYETDINH <-> NHUCAU, Q_N, NA

QUYETDINH <-> YDINH, Q_Y, NA

QUYETDINH <-> TIMKIEM, Q_T, NA

QUYETDINH <-> MOITRUONG, Q_M, NA

YDINH <-> TIMKIEM, Y_T, NA

YDINH <-> MOITRUONG, Y_M, NA

YDINH <-> NHUCAU, Y_N, NA

NHUCAU <-> TIMKIEM, N_T, NA

NHUCAU <-> MOITRUONG, N_M, NA

TIMKIEM <-> MOITRUONG, T_M, NA

Marketing4<->Marketing1, m_m, NA

- Study, apply the latest tatistical methods to R in projects:

1. "lavaan: An R Package for Structural Equation Modeling"

<u>Authors:</u> Yves Rosseel, posted on <u>JOURNAL OF STATISTICAL SOFTWARE</u>, Volume 48 Isue 2, May/2012.

<u>Download:</u> https://www.jstatsoft.org/article/view/v048i02/v48i02.pdf

2. "Using the lavaan package (in R) for latent variable modeling (SEM)"

<u>Authors</u>: Dr. William Revelle, Ph.D - Northwestern University posted on <u>Stats</u> <u>Make Me Cry</u> December/2013.

<u>Web:</u> http://www.statsmakemecry.com/smmctheblog/using-the-lavaanpackage-in-r-for-latent-variable-modeling-sem 3. "R packages for Structural Equation Model: SEM with R"

<u>Author:</u> Pairach Piboonrungroj, PhD posted on <u>Supply Chain Analytics</u> with R: August/2011.

<u>Source:</u> <u>https://pairach.com/2011/08/13/r-packages-for-structural-equation-model/</u>

4. "R Tutorial Series"

Author: John M Quick: October/2011.

Source: http://rtutorialseries.blogspot.com/2011/10/r-tutorial-series-exploratory-

factor.html

5. "A Rant About Uncorrelated Normal Random Variables"

Author: Jeffrey S. Rosenthal, 2005

<u>Source:</u> <u>http://probability.ca/jeff/teaching/uncornor.html</u>

6. "Step out of the past: Stop using coefficient alpha; there are better ways to calculate reliability."

<u>Author:</u> Dr. Jon Starkweather June/2012 University of North Texas.

Source: https://www.unt.edu/

7. "Examining Cronbach Alpha, Theta, Omega Reliability Coefficients According to Sample Size"

<u>Authors:</u> Ilker Ercan, Berna Yazici, Deniz Sigirli, Bulent Ediz, Ismet Kan Uludag University, Turkey, Anadolu University, Turkey.

Source:

http://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=1144&context=jmas
m

8. "A general approach to confirmatory maximum likelihood factor analysis"

<u>Author:</u> K. Jöreskog *Psychometrika*, 1969, vol. 34, issue 2, pages 183-202

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<u>Author:</u> Matthew Gordon Ray Courtney The University of Auckland (New Zealand) posted on *Practical Assessment, Research & Evaluation* April 2013 Volume 18, ISSN 1531-7714

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<u>Authors:</u> Richard E. Zinbarg, William Revelle, Iftah Yovel, Wen Li posted on Psychometrika —vol. 70, no. 1, 123–133 March/2005

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<u>Author:</u> Bradley Efron, posted on Annals of Statistics Jan/1979

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<u>Author:</u> Tenko Raykov, posted on *British Journal of Mathematical and Statistical Psychology* Jan/2011

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- Ability:

- English: Reading, writing, speaking about work.
- Study and read, apply new statistical techniques in the world
- Debug in programming and data analysis with R and other programming applications.
- Ability to use any statistical software
- ♣ Ability to program: C #, JAVA, C ++, SQL ...
- Apply the latest statistical methods
- Large data processing.
- Recruitment and training
- Ability to analyze market, analyze business
- Online Marketing Capabilities
- Creativity in business
- Search, build and develop new customer networks;
- Proposing sales policies, gathering information, analyzing and proposing types and quantities from time to time for the company to implement import/ export plan.
- ♣ Investigate the market, competitors, advise in time to have appropriate business strategies, oriented to develop sustainable markets.
- ♣ Ability to advise on products and services to the board of directors.