

# Decisions to buy a smartphone

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# Introduction project

- Survey distributed on Facebook for 3 weeks
- 100 responses
- Content 25 questions

# Survey

- Age range: 17 to 69
- Gender: 58% male and 42% female
- 95% has a smartphone

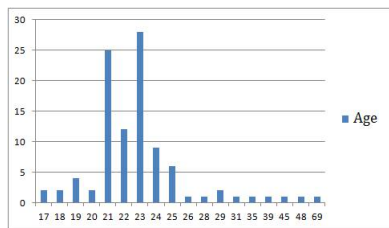


Figure : Age

# Survey

Data not included into the survey

- Europe only
- Replies of people who don't have a smartphone
- Excluding extreme responses

# Model 1: Brand-commitment

- Linear equation

$$\begin{aligned} \text{BRANDCOMMITMENT}_i = & \beta_0 + \beta_1 \text{AGE} + \beta_2 \text{GENDER} + \beta_3 \text{EUROPE} \\ & + \beta_4 \text{IMAGE} + \beta_5 \text{FUNCTIONALITY} + \beta_6 \text{QUALITY} + \beta_7 \text{SERVICES} \\ & + \beta_8 \text{OPERATINGSYSTEM} + \beta_9 \text{CARRIER} + \beta_{10} \text{DESIGN} \\ & + \beta_{11} \text{BRAND} + \beta_{12} \text{HABIT} + \beta_{13} \text{PRICE} \end{aligned}$$

# Model 1: Brand-commitment

Factors that influence the model the most

- Design
- Carrier

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AGE	-0.003941	0.024029	-0.164027	0.8701
GENDER	-0.149631	0.211295	-0.708163	0.4809
EUROPE	0.079483	0.399391	0.199011	0.8428
F2IMAGE	0.114203	0.098093	1.164235	0.2477
F3FUNCTIONALIT	0.095869	0.268485	0.357075	0.7220
F4QUALITY	-0.004185	0.317541	-0.013178	0.9895
F5OS	0.000135	0.159675	0.000847	0.9993
F6SERVICES	0.039095	0.185694	0.210536	0.8338
F7CARRIER	0.207933	0.148863	1.396804	0.1663
F8DESIGN	0.428123	0.178964	2.392235	0.0191
F9BRAND	0.372282	0.182219	2.043050	0.0443
F10HABIT	0.127721	0.158377	0.806438	0.4224
F11PRICE	-0.185311	0.180775	-1.025089	0.3084
C	0.765401	0.936986	0.816876	0.4164

Figure : Brand-commitment.

# Model 1: Brand-commitment

Accuracy of 36% is achieved in our model

R-squared	0.365532	Mean dependent var	2.105263
Adjusted R-squared	0.263704	S.D. dependent var	1.046511
S.E. of regression	0.897987	Akaike info criterion	2.757986
Sum squared resid	65.31678	Schwarz criterion	3.134347
Log likelihood	-117.0043	Hannan-Quinn criter.	2.910064
F-statistic	3.589698	Durbin-Watson stat	2.232991
Prob(F-statistic)	0.000184		

Figure : Accuracy statistics



# Model 1: Improved

Excluding values that have no relevance

- Quality
- Functionality
- Age
- Etc.

$$BRANDCOMMITMENT_i = \beta_0 + \beta_1 CARRIER + \beta_2 DESIGN$$

# Model 1: Improved

Simplifying the model with 2 variables

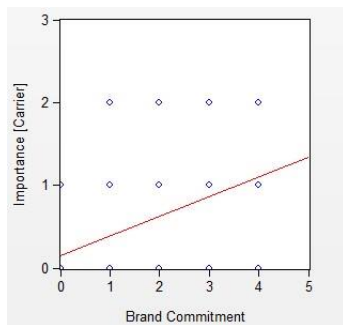
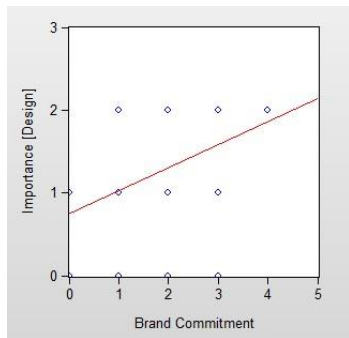
- Carrier
- Design

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F7CARRIER	0.344527	0.133198	2.586583	0.0113
F8DESIGN	0.666340	0.153662	4.336400	0.0000
C	0.989622	0.221677	4.464250	0.0000
R-squared	0.267226	Mean dependent var		2.105263
Adjusted R-squared	0.251296	S.D. dependent var		1.046511
S.E. of regression	0.905521	Akaike info criterion		2.670458
Sum squared resid	75.43715	Schwarz criterion		2.751107
Log likelihood	-123.8467	Hannan-Quinn criter.		2.703046
F-statistic	16.77516	Durbin-Watson stat		2.273493
Prob(F-statistic)	0.000001			

Figure : Improved brand-commitment

# Model 1: Brand-commitment

The mayor influences on brand-commitment.



## Model 2: High-Quality

- Linear equation

$$\begin{aligned}
 \text{HIGHQUALITY}_i = & \beta_0 + \beta_1 \text{AGE} + \beta_2 \text{CONSIDERINGAPPEARANCE} \\
 & + \beta_3 \text{BRANDCOMMITMENT} + \beta_4 \text{BUDGETISSUES} \\
 & + \beta_5 \text{CONSIDERINGTRENDS} + \beta_6 \text{EUROPE} + \beta_7 \text{HABBIT} + \beta_8 \text{PRICE} \\
 & + \beta_9 \text{IMAGE} + \beta_{10} \text{FUNCTIONALITY} + \beta_{11} \text{QUALITY} + \beta_{12} \text{OS} + \beta_{13} \text{SERVICES} \\
 & + \beta_{14} \text{CARRIER} + \beta_{15} \text{DESIGN} + \beta_{16} \text{BRAND} + \beta_{17} \text{GENDER}
 \end{aligned}$$

## Model 2: High-Quality

Factors that influence the model the most

- Price
- Functionality

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AGE	0.004029	0.008050	0.500571	0.6181
CONSIDERING_APPEARANCE	-0.018179	0.028690	-0.633648	0.5282
BRAND_COMMITMENT	0.059057	0.037065	1.593308	0.1152
BUGET_ISSUES	0.019856	0.075246	0.263885	0.7926
CONSIDERING_TRENDS	0.044393	0.075186	0.590442	0.5566
EUROPE	-0.001315	0.132865	-0.009900	0.9921
F10HABIT	0.019370	0.052920	0.366030	0.7153
F11PRICE	-0.221703	0.062771	-3.531949	0.0007
F2IMAGE	-0.122345	0.065645	-1.863721	0.0662
F3FUNCTIONALIT	0.195732	0.090158	2.170985	0.0330
F4QUALITY	0.326305	0.108659	3.003031	0.0036
F5OS	0.045072	0.053753	0.838501	0.4043
F6SERVICES	0.105956	0.062176	1.704137	0.0924
F7CARRIER	-0.043435	0.052805	-0.822560	0.4133
F8DESIGN	-0.034191	0.061673	-0.554385	0.5809
F9BRAND	-0.041644	0.062492	-0.666385	0.5072
GENDER	-0.116348	0.071082	-1.636809	0.1058
C	0.153384	0.357283	0.429307	0.6689

Figure : High-Quality model

## Model 2: Improved

Excluding values that have no relevance

- Europe
- Budget issues
- Habbit
- Etc.

$$HIGHQUALITY_i = \beta_0 + \beta_1 PRICE + \beta_2 FUNCTIONALITY$$

## Model 2: Improved

Simplifying the model with 2 variables

- Price
- Functionality

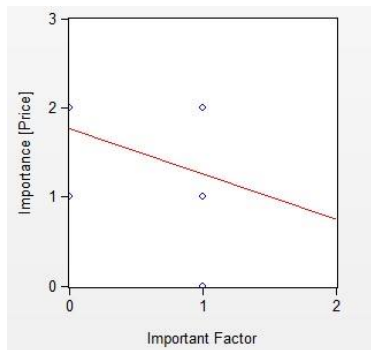
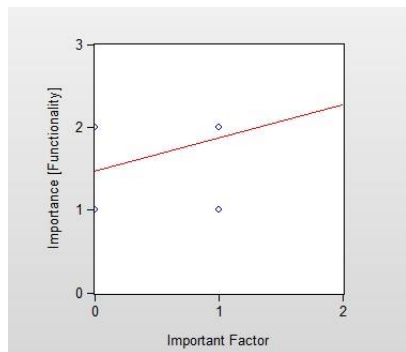
Variable	Coefficient	Std. Error	t-Statistic	Prob.
F11PRICE	-0.265901	0.062695	-4.241165	0.0001
F3FUNCTIONALIT	0.378917	0.084386	4.490280	0.0000
C	0.497269	0.174910	2.842992	0.0055
R-squared	0.287181	Mean dependent var		0.821053
Adjusted R-squared	0.271685	S.D. dependent var		0.385342
S.E. of regression	0.328856	Akaike info criterion		0.644676
Sum squared resid	9.949458	Schwarz criterion		0.725325
Log likelihood	-27.62211	Hannan-Quinn criter.		0.677264
F-statistic	18.53248	Durbin-Watson stat		2.150862
Prob(F-statistic)	0.000000			

Figure : High-quality improved model

## Model 2: High-Quality

The mayor influences on High-Quality

- Functionality
- Price





# Conclusions

Brand-commitment versus design

- Special Design
- User friendly

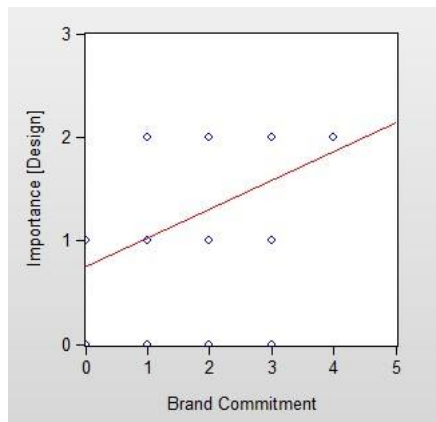


Figure : Brand-commitment versus Design

# Conclusions

## High-Quality versus Price

- This is actually verifiable
- In our survey the majority part uses a cheaper operating system, because of price.

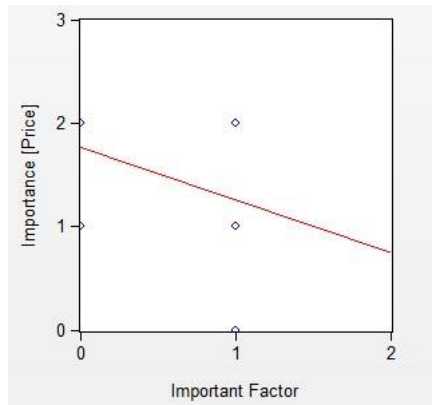


Figure : High-Quality versus Price



Thank you for your attention!