

**Modelling the exit--voice
trade-off: social capital and
responses to public services**

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Hirschmann

- *Exit, Voice and Loyalty* (1970)
- Studied nationalised industries in Africa – found that competition led to loss of efficiency – a puzzle
- Argued that consumers who are locked in agitate to keep services efficient. No incentive to voice under competition when other opportunities available

Hirschmann (continued)

- Posited a negative trade-off between exit and voice
- Mediated by loyalty – a less clear part of the Hirschman model
- Can apply to a variety of settings: schools, employment quits (unions), consumers (see Dowding et al review article: EJPR, 2000)

Psychological dimensions

- Rusbult proposes Exit, Voice, Loyalty and Neglect' (EVLN) model
- Adopted by deHoog, Lyons and Lowery (1992)
- Different concept of loyalty to Hirschman

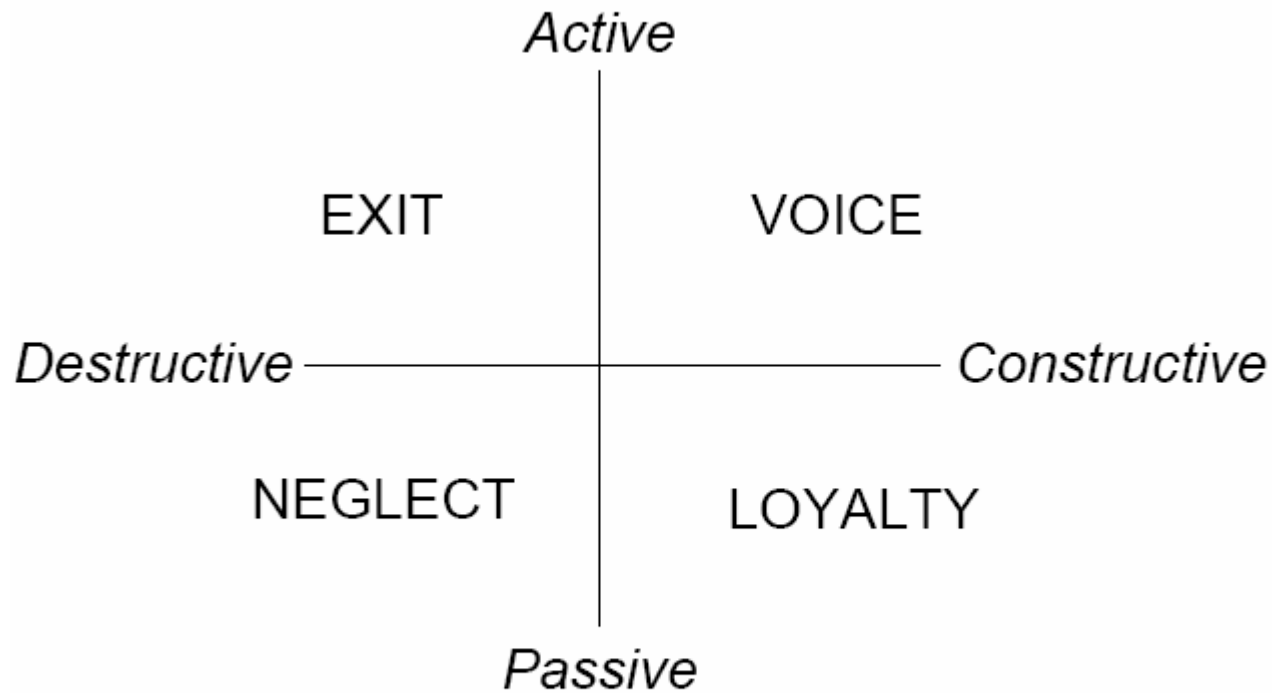


Figure 1: EVLN Model: modified from Lyons *et al.* 1992

Our modifications

- Voice is too simple – there are different types of voice, collective (eg voting, group membership) and individual (e.g. complaining)
- Collective voice is harder to organise because of CA (PD problems)
- So hypothesis is that individual voice does not trade-off with exit, collective voice does – exit and two voice

Modifications continued

- Exit takes different forms to:
 - Moving providers within jurisdiction
 - Moving jurisdiction
 - Exit to private services

So three exit, two voice model

Also voice can be divided into voting and more active categories, so three voice, three exit

Thinking about loyalty

- Loyalty not well defined in Hirschmann
- Better to see it as social investment which increases voice and reduces exit
- Can be conceptualised as social capital
 - Neighbourhood attachment
 - Group membership
 - trust

Satisfaction

- Need to think about as a separate variable
- An important aspect of responses to public services
- Also can mediate exit-voice tradeoff
- Something that providers can affect at the aggregate level

Putting the model together

- 3E3VL Framework is a competitor to EVLN - we believe former is superior
- In the EVLN model loyalty is another behavioural response on a par with exit, voice and neglect, 3E3VL loyalty is more of a psychological variable that mediates the exit—voice trade-off
- Need to set out what are the predicted relationships and signs of the variables of exit, voice, loyalty and satisfaction

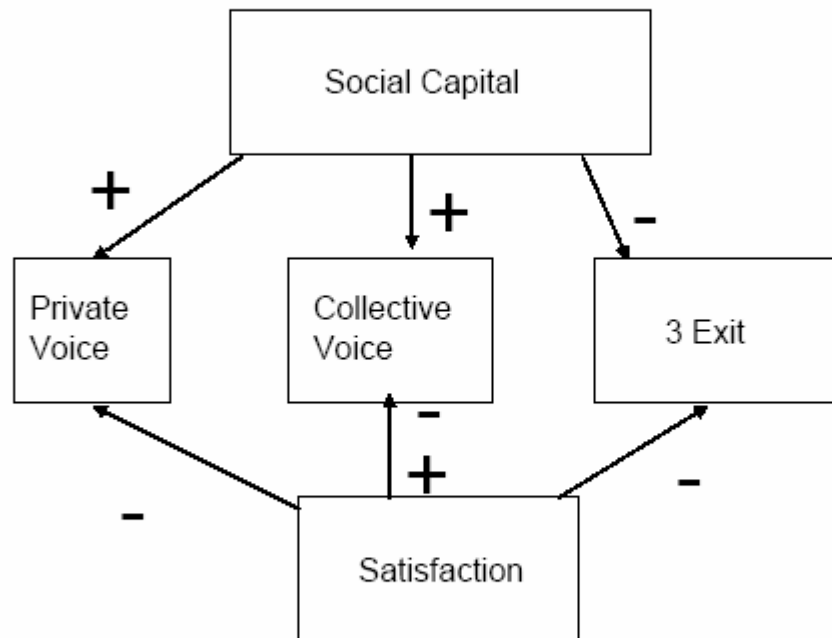


Figure 2: Basic Relationships Between Exit, Voice, Social Capital and Satisfaction

The study

- Internet Survey – YouGov
- Sampled 9500 which yielded 4067 responses, a response rate of 42.1 per cent.
- On-line questionnaire

Data analysis strategy

- Key idea is to model impact of social capital and satisfaction on the exit voice trade-off controlling for other variables
- Conventional regression not suitable because of multiple interactions
- Multidimensional nature of variables suggest factor analytic techniques
- Measurement error need to be corrected for

Exploratory and Confirmatory Factor Analysis

- EFA is factor analysis – used for creating latent variables inductively at early stage of model building
- CFA is deductively driven and allows you to compare different configurations of latent variables
- You can then build more complex models with a series of covariates=path analysis

Modelling strategy

- Assume a one factor model of social capital with various indicators (eg group membership), creates fit measures (AIC – low values desirable)
- First order factor – different components of social capital
- Higher order factor, combination of the first two
- Which ever fits best we model with exit and voice

Rotated Exploratory Factor Analysis

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.499	13.152	13.152
2	1.432	7.536	20.688
3	1.295	6.817	27.505
4	1.178	6.200	33.705
5	1.062	5.589	39.294
6	1.026	5.401	44.695

Extraction Method: Principal Component Analysis.

Table 2: **Component Matrix**

Extraction Method: Principal Component Analysis.
a 6 components extracted.

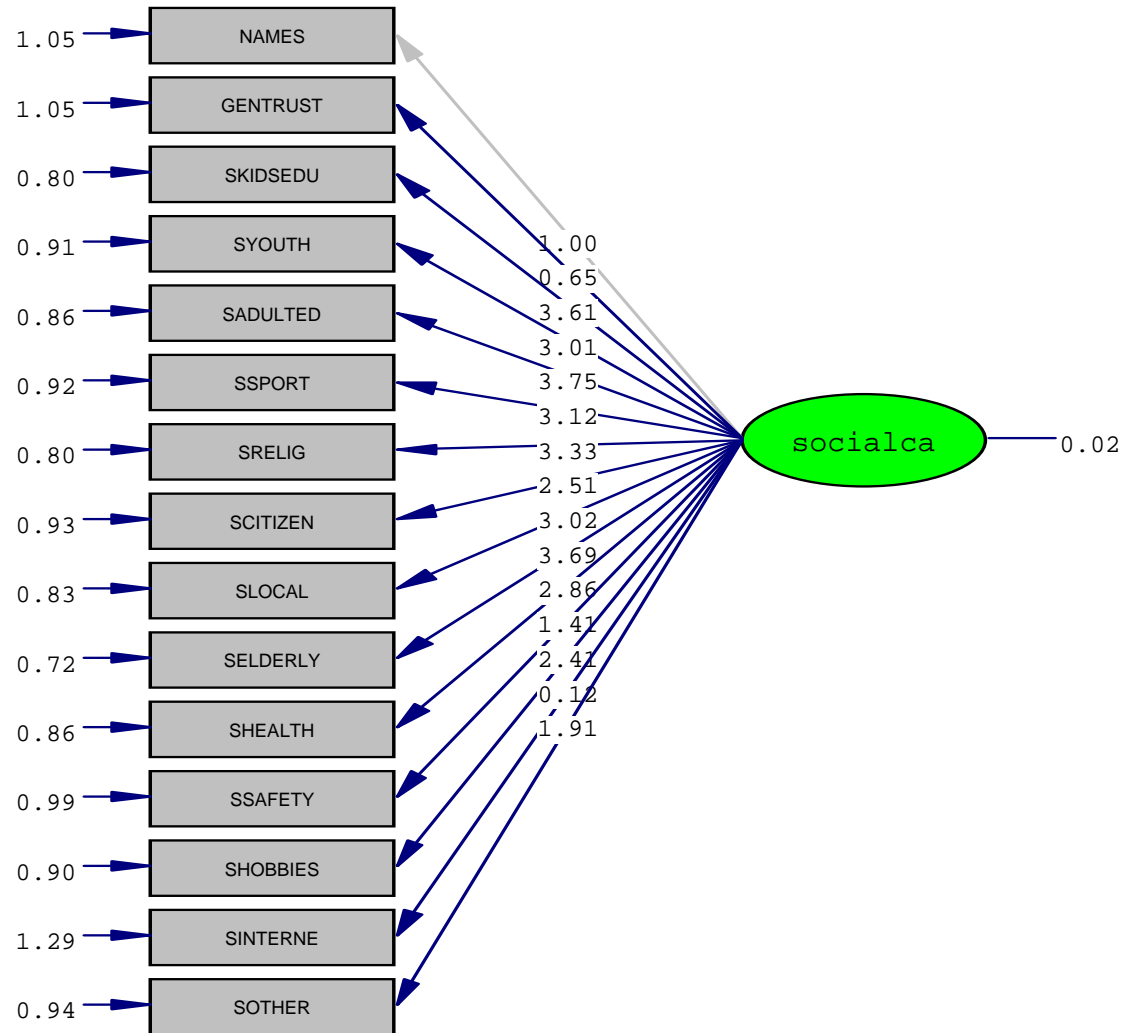
	Component					
	1	2	3	4	5	6
names	-.206	.084	.460	.505	.072	.010
general trust	-.192	.030	.179	.614	.151	.177
sedu	.417	-.417	-.060	.036	.409	-.002
syouth	.414	-.441	-.050	.038	.350	.064
sadults	.399	-.104	-.076	.229	-.154	.051
ssports	.451	-.403	.232	-.087	-.218	-.043
srelig	.413	-.112	-.046	-.116	.239	-.164
spolitics	.432	.400	.278	-.234	.216	.190
stu	.268	.127	.276	-.003	.197	.429
senviron	.407	.324	.179	-.096	-.028	-.282
sjustice	.416	.432	.283	-.111	.230	-.153
scitizen	.324	.343	-.179	.086	-.119	.381
slocal	.417	.133	-.389	-.064	-.084	.218
selderly	.358	.226	-.406	.313	.019	-.273
shealth	.326	.247	-.264	.430	-.011	-.349
ssafety	.308	-.215	-.104	.284	-.051	.362
shobbies	.493	-.287	.192	.012	-.442	-.115
sinternet	.282	-.030	.487	.123	-.326	-.121
sother	.116	.159	-.120	-.063	-.390	.298

Table 3: Rotated Component Matrix

	Component					
	1	2	3	4	5	6
names	.058	-.125	.070	-.018	-.165	.686
generaltrust	-.111	.011	-.106	.063	.043	.686
sedu	.033	.715	.067	.048	-.011	-.029
syouth	-.002	.695	.103	.001	.047	-.019
sadults	-.024	.187	.294	.232	.276	.048
ssports	.025	.294	.605	-.090	.036	-.121
srelig	.220	.405	.088	.151	-.050	-.193
spolitics	.704	.083	-.001	-.105	.218	-.036
stu	.376	.183	.002	-.256	.315	.216
senviron	.506	-.053	.223	.256	-.051	-.121
sjustice	.707	.046	.048	.151	-.035	-.003
scitizens	.203	-.065	-.044	.129	.598	.004
slocal	.078	.127	-.022	.213	.507	-.276
selderly	.059	.093	-.037	.691	.151	-.053
shealth	.086	.032	.048	.722	.060	.093
ssafety	-.145	.302	.158	.032	.443	.179
shobbies	.004	.111	.725	.076	.110	-.119
sinternet	.209	-.097	.604	-.005	-.042	.185
sother	-.026	-.248	.126	-.040	.449	-.127

Figure 1: The One Factor Model

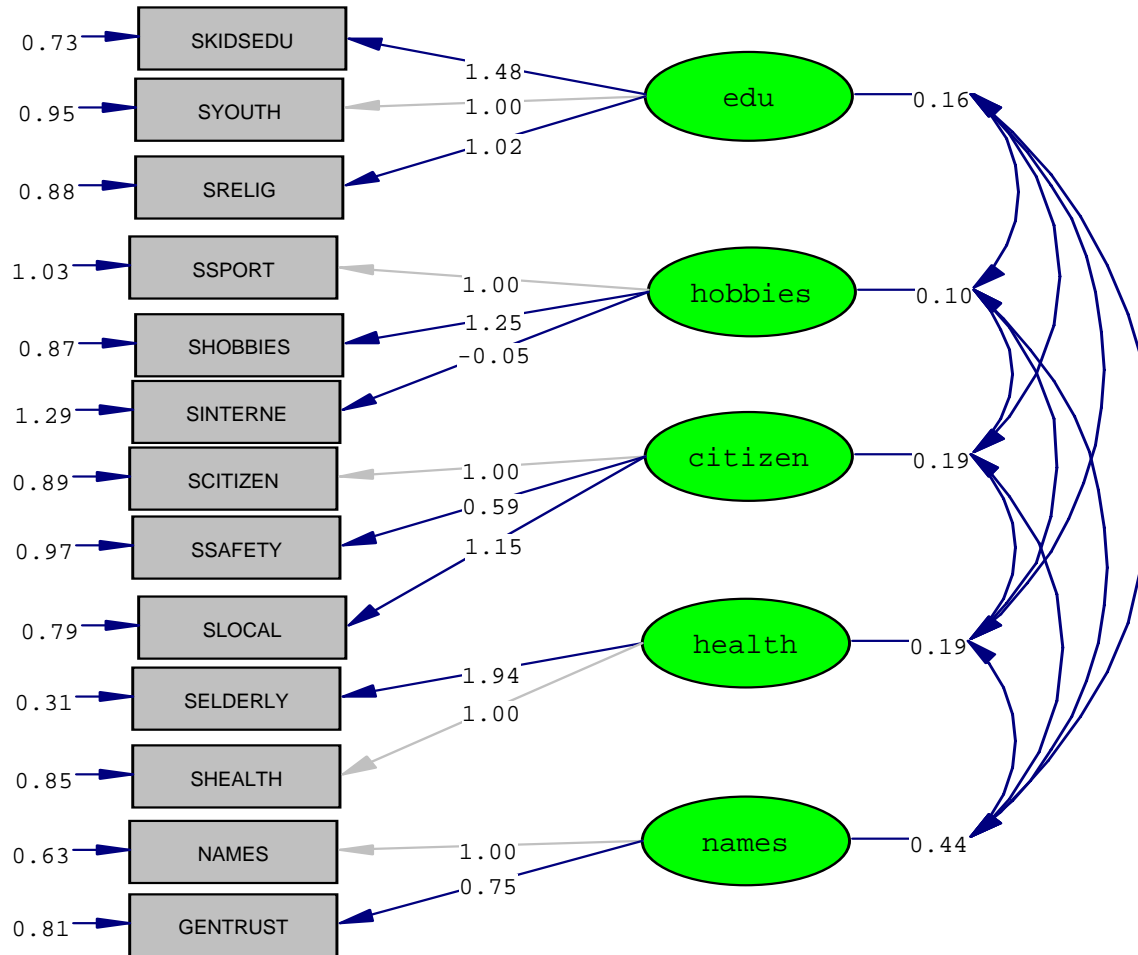
Model AIC = 2357.40



Chi-Square=2297.40, df=90, P-value=0.00000, RMSEA=0.098

Figure 2: First Order Model

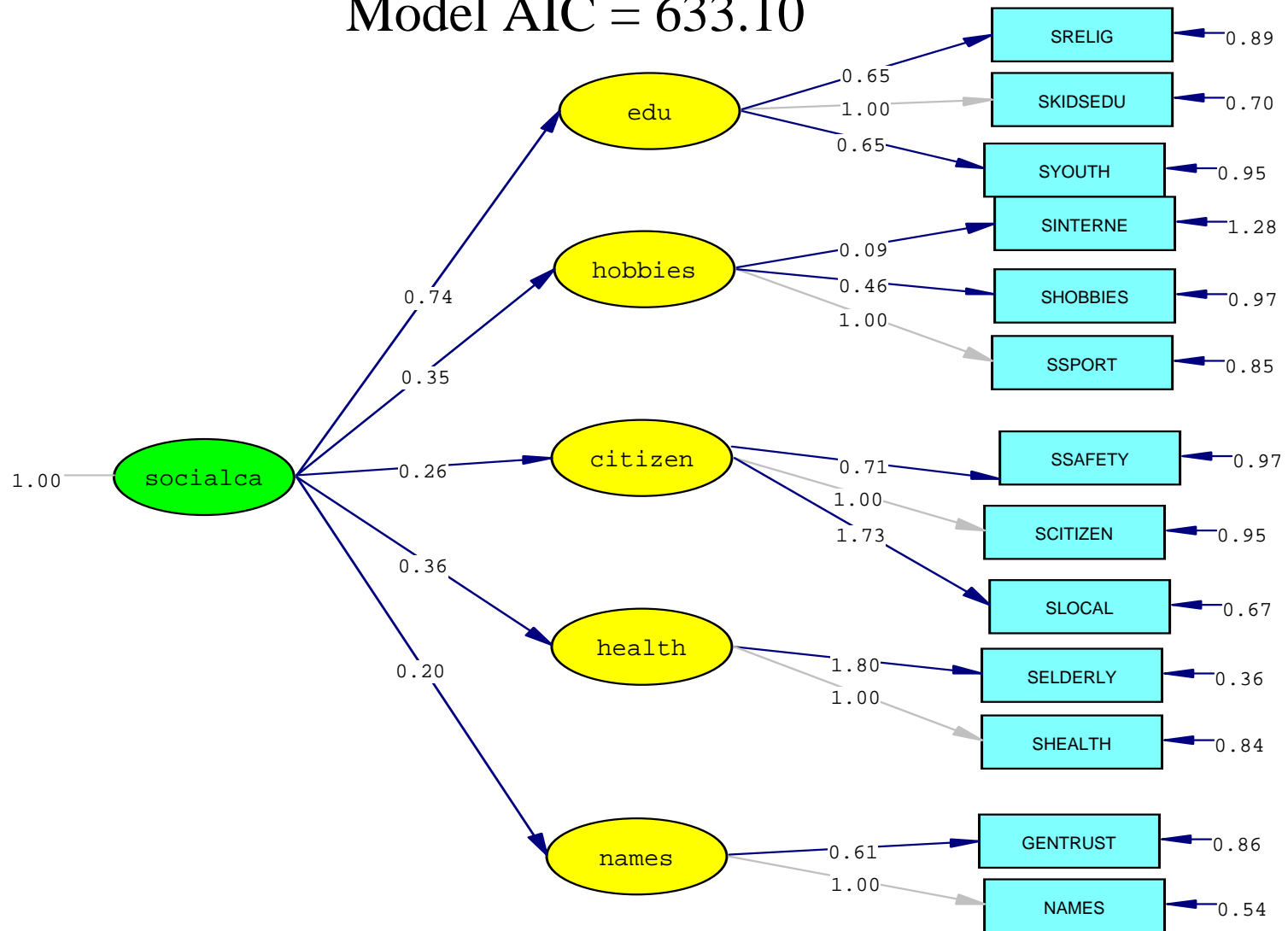
Model AIC = 481.31



Chi-Square=409.31, df=55, P-value=0.00000, RMSEA=0.050

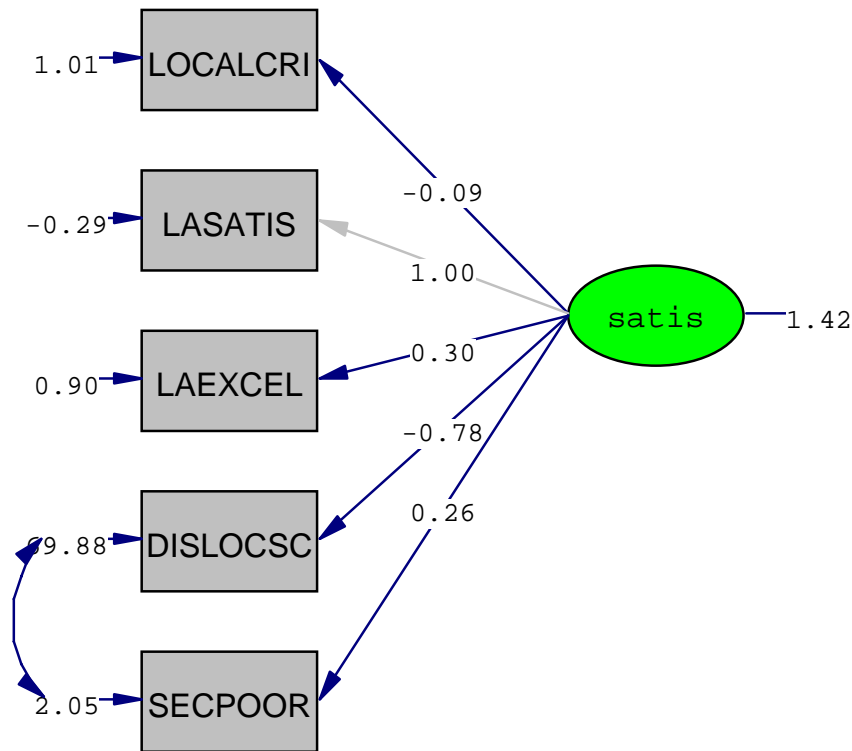
Figure 3: Second Order Model

Model AIC = 633.10



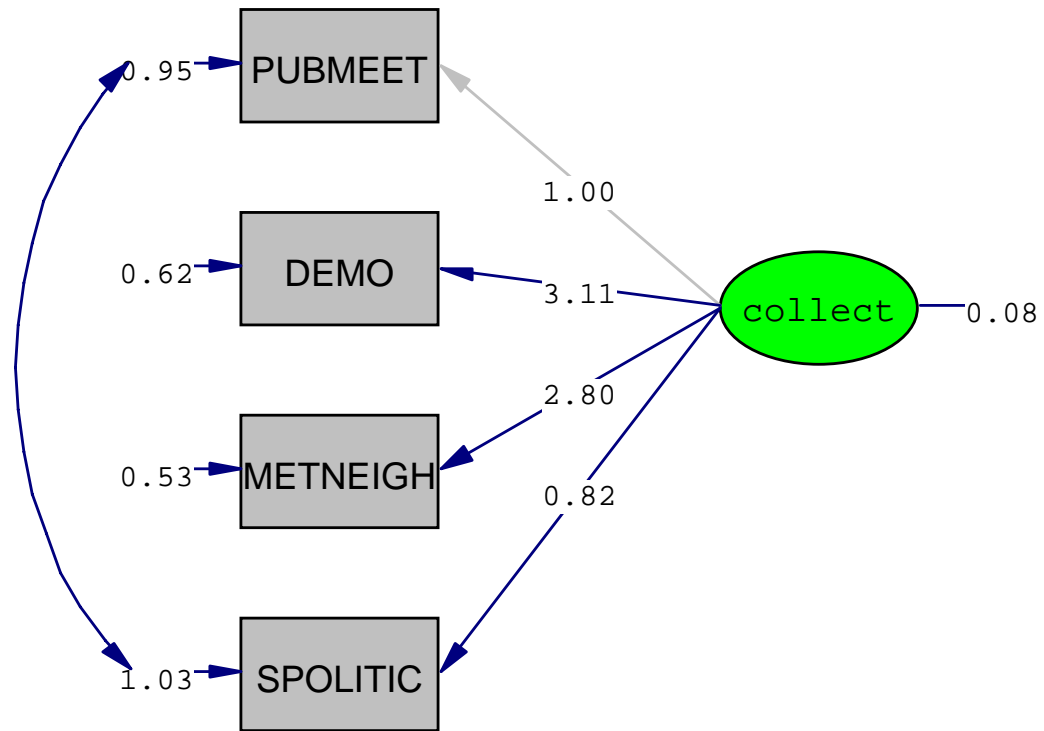
Chi-Square=571.10, df=60, P-value=0.00000, RMSEA=0.058

Figure 4: Satisfaction measurement model



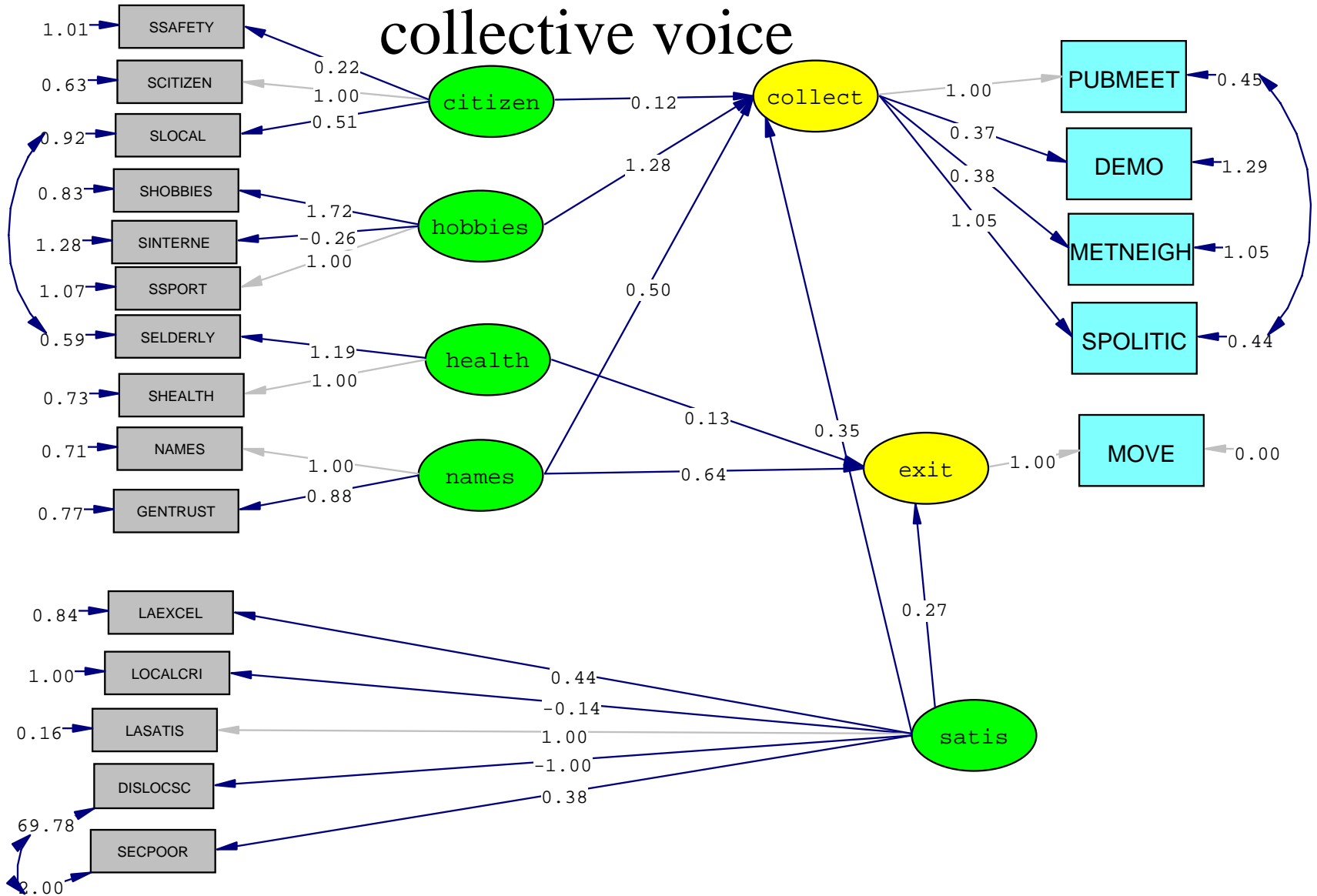
Chi-Square=13.74, df=4, P-value=0.00816, RMSEA=0.031

Figure 6: Exit, collective voice and satisfaction, structural model



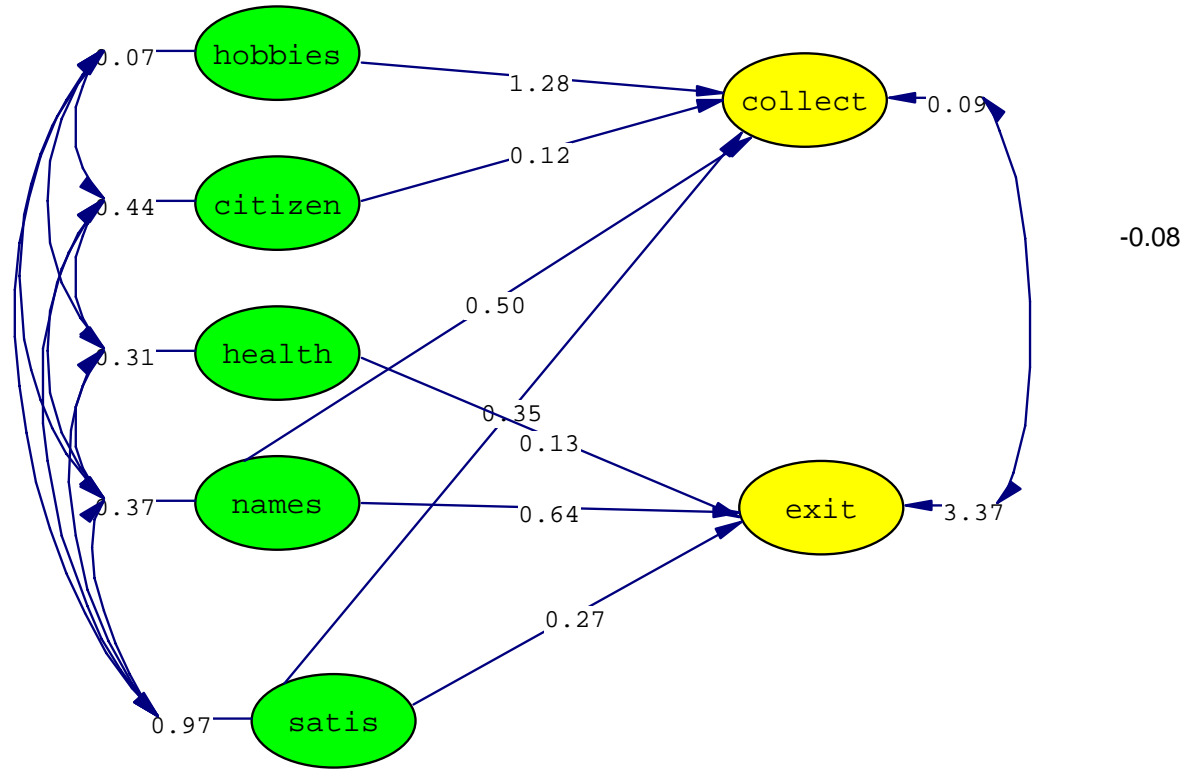
Chi-Square=15.49, df=1, P-value=0.00008, RMSEA=0.075

Figure 7: Social capital, satisfaction, exit and collective voice

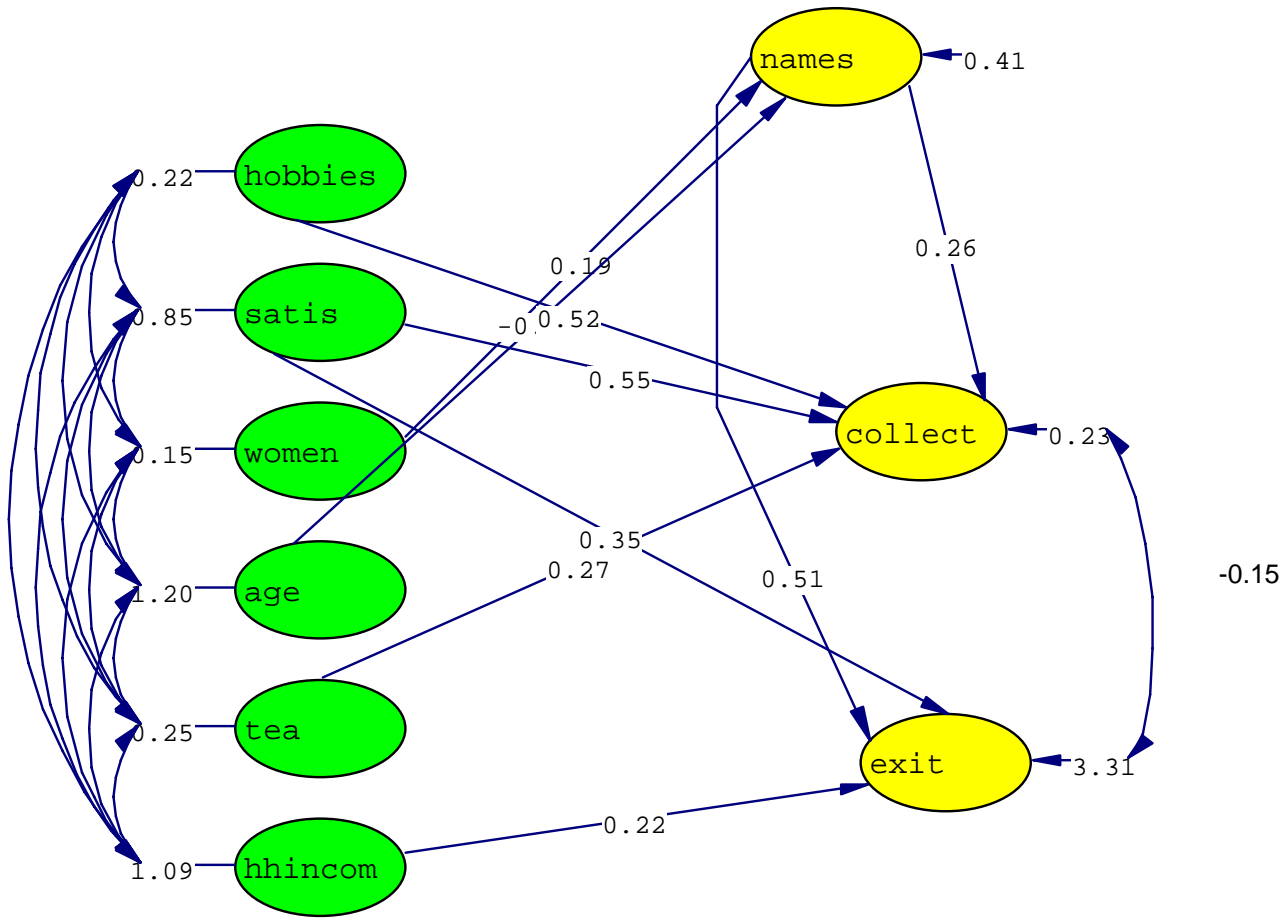


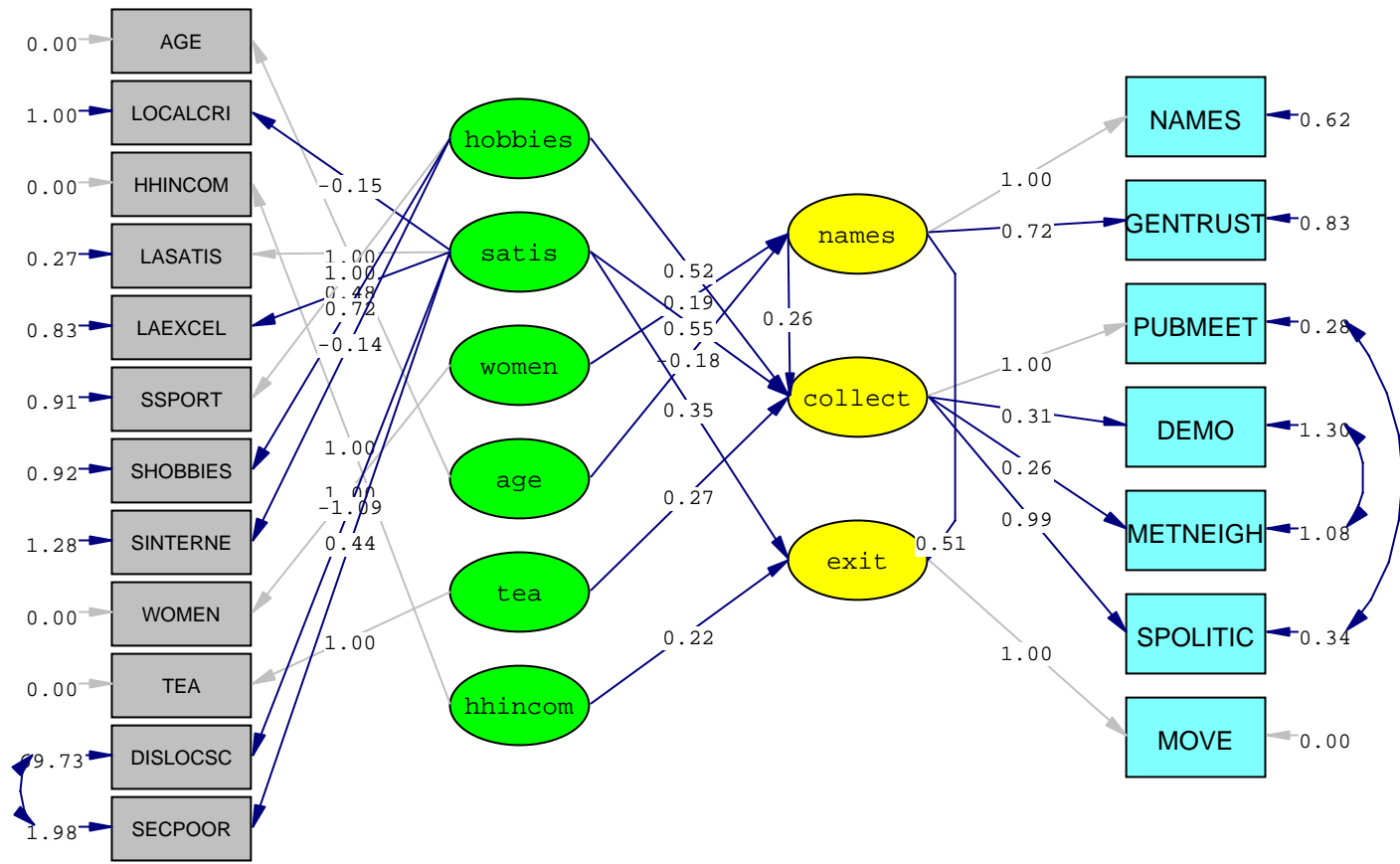
Chi-Square=2365.99, df=150, P-value=0.00000, RMSEA=0.076

Appendix 1: Satisfaction, collective voice and exit, full model



Chi-Square=2365.99, df=150, P-value=0.00000, RMSEA=0.076





Chi-Square=2036.56, df=129, P-value=0.00000, RMSEA=0.076

Conclusions

- Social capital (SC) is not unidimensional – different relationship depending on dimension
- We find expected relationships, exit and voice (-ve) between SC and voice (+ve), SC and exit (-ve), satisfaction and exit (-ve), satisfaction and voice (+ve), but unexpected between voice and exit (+ve=noisy exit)