Master Thesis – The Influence of the Social Network Site Facebook *on the Users' Educational Participation*

Marc Graupner, M.A.*

UNIKASSEL VERSITÄT

*Chair of Methods of Empirical Social Research, Germany

1. Motivation and Theory

Nowadays, the social network site Facebook constitutes a medium of communication medium for a large proportion of our society. Hence, there are various reasons – especially for modern social scientists – for investigating the "research area" Facebook, the interconnections between members and its role for their cognitive structures and behavior. Because of the latest Facebook formation in 2004, there are few social-scientific studies which investigate these individual and personal traits of participating actors. In our master thesis – as a first assumption for figuring out something about the issues mentioned – we conduct a whole research process about this topic. With the help of a self-designed online survey, we examine the *influence of the social network site Facebook on the users' educational participation*. This means we try to show, which influence has different use of Facebook has on the learning opportunities on Facebook. We executed no experiment between Facebook users and non Facebook users. For creating hypotheses, we use theoretical assumptions of Bandura´s social cognitive learning theory (1979) and Marotzki's "Strukturale Bildungstheorie" (1990). The last one is a less known theory. It includes that a person has a particular education because of the group, to which the person belongs. If people change the group they will chance the education because of the changes in the reference to themselves, to the world or to the social environment. The expression "education" presents a term, which is a frame. This frame includes what you can learn because of social cognitive learning theory. Educational frames can offer interfaces.

Of course, we take these approaches for bringing together with theoretical continuations of Halbwachs (1985a, 1985b). He says that a person can be a member of more than one group. So the educational frame of a person can be a composition of the educational frames of various groups. The second theoretical continuation of Nohl and Ortlepp (2008) describes that a person can save data from out the past because of the new media. Therefore the educational frame from out the past can be a part of the educational frame of the present or future.

Altogether, our master thesis containts into two parts: educational participation and consumer behavior on Facebook. On this poster, the educational participation on Facebook (developed by Marc Graupner) is presented. As a remark: the word "friend" can here not be equated with a strong tie. It is a description of a on Facebook connected person to ego.

By the way, many thanks to our advisor Prof. Dr. Mühler, our friends, and our family for helping us all day and night.

2. Hypotheses

1. *The more friends a person has on Facebook, with at least one contact in the last month, the higher is the use of learning opportunities on Facebook. (Strukturale Bildungstheorie; confirmed)*
2. *The more often a person gets new friends on Facebook, the higher is the use of learning opportunities on Facebook. (Strukturale Bildungstheorie; confirmed)*
3. *The more data from the past (photographs in association with subjective important persons, activities, locations) are saved on the Facebook profile of a person, the higher the use of learning opportunities is on Facebook. (Strukturale Bildungstheorie; confirmed)*
4. *The more often friends post visible educational aspects (newspaper articles or similar) on Facebook, the higher the use of learning opportunities is on Facebook. (Social Cognitive Learning Theory; confirmed)*
5. *The more a person uses Facebook, the higher is the use of learning opportunities on Facebook. (Social Cognitive Learning Theory; confirmed)*

3. Implementation

Via pyramid scheme, the self-designed online survey on www.soscisurvey.de (with the help of an acquisition of expert knowledge) was distributed on Facebook, black boards, internet forums and other institutions (like Universities, Universities of Applied Sciences, student representatives, electronic data processing center of Universities etc.) all over Germany. To all participants taking part in our study, the opportunity to take part in a drawing to win four AMAZON coupons of 30€ each and/or getting an abstract of our study, is given. Before we estimated our model, we did an extensive operationalization, variables´ coding and scale building, univariate and bivariate analysis, control variable´s analysis, and checking mediation variables. Next, we conduct a regression analysis with all control variables and variables of hypotheses (*see below, chapter 4*). All hypothesis were confirmed. In our last step, we use the statistical method of a neural network (for an approximation of the regression function which is rarely used relating to social sciences) – especially the sensitive analysis of the exogenous variables – to comparing these values with the beta-coefficients of the final regression model. As a result, the size of beta-coefficients and the sensitive analysis (neural network) were alike from the point of view that the variables of the theoretical model are more important to explain the dependent variable than the control variables in both methods (*see chapter 5: Neural Network - Results*).

4. Results of Multiple Regression

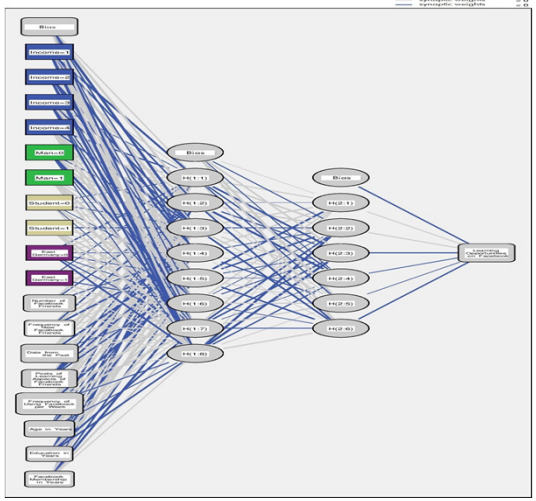
Independent Variables		Dependent Variable: Learning Opportunities on Facebook – Model Number					
	r	1	2	3	4	5	6
Variables of Theoretical Model							
Number of Facebook Friends	0,24**	0,11**	0,10**			0.07**	**0,06***
Frequency of new Facebook Friends	0,27**	0,20**	0,20**			0,15**	**0,14****
Data From the Past	0,24**	0,17**	0,16**			0,14**	**0,13****
Posts of Learning Aspects of Facebook Friends	0,33**			0,31**	0,33**	0,24**	**0,26****
Frequency of Using Facebook (per Week)[1]	0,22**			0,17**	0,16**	0,15**	**0,15****
Control Variables							
Age (in Years)	-0,03		-0,01		-0,02		0,00
Education (in years)	-0,06*		-0,01		-0,03		-0,01
Income 250 to Below 500€[2]	0,16[6]		0,07+		0,08*		0,07*
Income 500 to Below 1000€[2]	0,20[6]*		0,07+		0,10**		0,08*
Income Above 1000€[2]	0,11[6]		0,05		0,08+		0,06
Man[3]	0,07**		0,07**		0,11**		0,10**
East Germany[4]	0,06*		0,06*		0,04		0,04+
Student[5]	0,04		0,03		0,06+		0,04
Facebook Membership (in Years)	0,10**		0,05*		0,09**		0,06*
(Adjusted) R^2		0,12**	0,13**	0,14**	0,17**	0,20**	0,22**
Number of Observations	1400	1400	1400	1400	1400	1400	1400

Note: [1] Logarithmised Variable; [2] Reference Category: Income Below 250€; [3] Reference Category: Woman; [4] Reference Category: West Germany; [5] Reference Category: no Student; [6] Result of Univariate ANOVA Based on Scheffe-Test (Relating to Reference Category)
** p < 0,01; * p < 0,05; + p < 0,1

5. Neural Network - Results

Multiple Regression (Beta-Coefficients)		Neural Network (Sensitive Analysis)	
Independent Variables	**Rank Order**	**Independent Variables**	**Rank Order**
Reading Educational Aspects	1	Frequency of Using Facebook	1
Frequency of Using Facebook	2	Data From the Past	2
Frequency of new Facebook Friends	3	Reading Educational Aspects	3
Data From the Past	4	Number of Facebook Friends	4
Number of Facebook Friends	5	New Facebook Friends	5
Man	6	Age	6
Income	7	Facebook Membership	7
Facebook Membership	8	Man	8
East Germany	9	Income	9
Student	10	Student	10
Education	11	Education	11
Age	12	East Germany	12

6. Neural Network - Visualization



References

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Marotzki, Winfried. 1990. *Entwurf einer strukturalen Bildungstheorie*. Weinheim: Deutscher Studien Verlag.

Halbwachs, Maurice. 1985a. *Das Gedächtnis und seine sozialen Bedingungen*. Frankfurt am Main. Suhrkamp.

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Nohl, Arnd-Michael and Wolfgang Ortlepp. 2008. Bildung und Gedächtnis im Cyberspace. In *Internet, Bildung, Gemeinschaft*, Ed. Friederike von Gross, Winfried Marotzki and Uwe Sander, 75-94. Wiesbaden: VS Verlag für Sozialwissenschaften.

Extract of the Master Thesis
„The Influence of the Social Network Site Facebook on the Users' Educational Participation and Consumer Behavior. A Quantitative Empirical Research. (realized by Sebastian Sterl and Marc Graupner)

Rational Choice Sociology: Theory and Empirical Applications
Workshop at Venice International University, San Servolo (Poster Session)
November 10 till November 13, 2014 (Nov. 11, 2014)

Advisor: Prof. Dr. Mühler
Duration of Process: Feb. 11 to Jul. 14, 2014
Grade: 1,0 (very good)
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Master Thesis – The Influence of the Social Network Site Facebook on Consumer Behavior

Sebastian Sterl, B.A.*

UNIVERSITÄT LEIPZIG

*University of Leipzig , Institute of Sociology, Germany

1. Motivation and Theory

Nowadays, the primary function of the social network site Facebook is to serve as a medium of communication for a large proportion of our society. Hence, there are various reasons – especially for modern social scientists – for investigating the "research area" Facebook, the interconnections between members, and its role for their cognitive structures and behavior. Because Facebook was just established in 2004, there is only a small number of social-scientific studies which investigate these individual and personal traits of participating actors. In our master thesis – as a first assumption for figuring out something about the issues mentioned – we conducted a whole research process on this topic.

With the help of a self-designed online survey, we examined the *influence of the social network site Facebook (especially the role of Facebook friends for the respondents) on the consumer behavior*. For creating hypotheses, we used theoretical assumptions of Bandura´s Social Cognitive Theory (1986), Heider´s Balance Theory (1946) and Festinger´s Theory of Social Comparison Processes (1954). Of course, we take these approaches to connect them with theoretical continuations. Altogether, our master thesis contains two parts: educational participation and consumer behavior influenced by Facebook. On this poster, the consumer behavior affected by Facebook (developed by Sebastian Sterl) is presented.

I conclude by conveying my thanks to our advisor Prof. Dr. Mühler, our friends, and our family for helping us all day and night.

2. Hypotheses

1. *The more an actor tends to positively closed triads, the higher the consumer behavior is influenced by Facebook. (Heider 1946; confirmed)*
2. *The more relevant a person is as a person of comparison – concerning the respondent´s vision of consumption (similarity of age, sex, status of friendship) – , the higher the consumer behavior is influenced by Facebook. (Festinger 1954; not confirmed)*
3. *The more relevant positive opinions of persons of comparison (Facebook friends) are, the higher the consumer behavior is influenced by Facebook. (Festinger 1954; confirmed)*
4. *The more an actor observes negative consumer´s experience of Facebook friends, the higher the consumer behavior is influenced by Facebook. (Bandura 1986; not confirmed)*
5. *The more an actor observes positive social signals from persons with a high status on Facebook, the higher the consumer behavior is influenced by Facebook.* **(***Bandura 1986; confirmed)*

3. Implementation

Via pyramid scheme, the self-designed online survey on www.soscisurvey.de (with the help of an acquisition of expert knowledge) was distributed on Facebook, black boards, internet forums and other institutions (like Universities, Universities of Applied Sciences, student representatives, electronic data processing center of Universities etc.) all over Germany. To all participants taking part in our study, the opportunity to take part in a drawing to win four AMAZON coupons of 30€ each and/or getting an abstract of our study, is given. Before we estimated our model, we did an extensive operationalization, coding of variables and scale building, univariate, and bivariate analysis, control variable´s analysis and checking mediation variables. Next, we conducted a regression analysis with all control variables and variables of hypotheses (*see below, chapter 4*). In the end, three out of five hypothesis were confirmed. In our last step, we used the statistical method of an (artificial) neural network (for an approximation of the regression function which is rarely used relating to social sciences) – especially the sensitive analysis of the exogenous variables – to comparing these values with the beta-coefficients of the final regression model. As a result, the size of beta-coefficients and the sensitive analysis (neural network) were completely identical (the rank order of the most important hypothesis variables is the same, *see chapter 5*: *Neural Network - Results*). An astonishing outcome.

4. Results of Multiple Regression

Independent Variable	Dependent Variable: Consumer Behavior Influenced by Facebook (log)								
	Model Number								
	r	1	2	3	4	5	6	7	8
Variables of Theoretical Model									
Tendency to Positively Closed Triads (log)	0.30**	0.30**	0.28**					0.12**	**0.12****
Relevance of Similarity to Persons of Comparison	0.06*			0.01	0.00			-0.01	-0.02
Relevance of Positive Opinions of Persons of Comparison (log)	0.44**			0.44**	0.44**			0.32**	**0.33****
Observations of Negative Consumer´s Experience	-0.10**					-0.10*	-0.05*	-0.01	-0.00
Observations of Positive Signals From Persons With a High Status	0.40**					0.40**	0.37**	0.23**	**0.21****
Control Variables									
Age (in Years)	-0.17**		-0.15**		-0.17**		-0.13**		-0.15**
Education (in Years)	-0.06*		-0.03		-0.04		-0.05*		-0.03
Income 250 to Below 500€ (ref.: Income Below 250€)	0.09**		0.10**		0.10**		0.11**		0.09**
Income 500 to Below 1000€ (ref.: Income Below 250€)	0.10[1]**		0.13**		0.15**		0.14**		0.13**
Income Above 1000€ (ref.: Income Below 250€)	-0.01[1]		0.11**		0.09*		0.10**		0.09*
Man (ref.: Woman)	-0.04		-0.01		-0.03		0.02		0.01
East Germany (ref.: West Germany)	0.05*		0.06*		0.02		0.05+		0.03
Student (ref.: no Student)	0.11**		0.10**		0.08**		0.11**		0.11**
Frequency of Using Facebook (per Week)	0.20**		0.16**		0.16**		0.12**		0.11**
(Adjusted) R^2		0.09*	0.16**	0.20**	0.27**	0.16**	0.22**	0.27**	0.33**
Number of Observations	1358	1358	1358	1358	1358	1358	1358	1358	1358

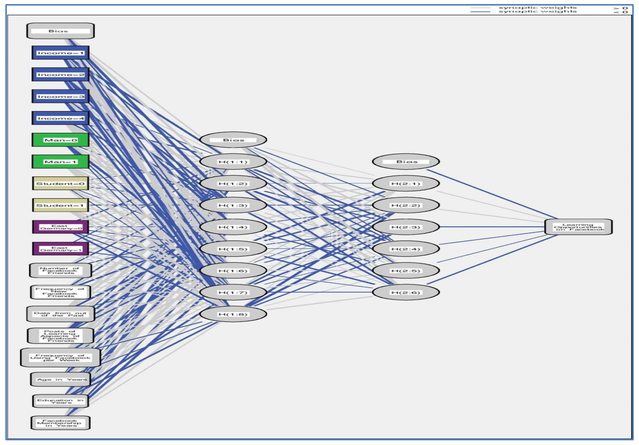
Notes: [1] Result of Univariate ANOVA Based on Scheffe-Test (Relating to Reference Category); **p<0.01; *p<0.05; +p<0.1

5. Neural Network - Results

Multiple Regression (Beta-Coefficients[1])		Neural Network (Sensitive Analysis[1])
Independent Variables	**Rank Order**	**Independent Variables**
Relevance of Positive Opinions of Persons of Comparison (Hypothesis 3)	1	Relevance of Positive Opinions of Persons of Comparison (Hypothesis 3)
Observations of Positive Signals From Persons With a High Status (Hypothesis 5)	2	Observations of Positive Signals From Persons With a High Status (Hypothesis 5)
Tendency of Positively Closed Triads (Hypothesis 1)	3	Tendency of Positively Closed Triads (Hypothesis 1)
Relevance of Similarity to Persons of Comparison (Hypothesis 2)	4	Relevance of Similarity to Persons of Comparison (Hypothesis 2)
Observations of Negative Consumer´s Experience (Hypothesis 4)	5	Observations of Negative Consumer´s Experience (Hypothesis 4)

[1]shown figure without control variables

6. Neural Network - Visualization



7. Future Prospects

Two thirds of participants were female, only 34 percent were male. The reasons for this phenomenon are extensively discussed in our master thesis. In a next research step there is the possibility to include the BF-10-scale (truncated Big Five-Scale) in our survey, in order to control the five dimensions of personality in a detailed way. For example, when investigating cultural differences, translating the items into English is crucial. This is absolutely necessary to analyze the huge research area "Facebook" and its opportunities worldwide. This process aims at getting a higher number of observations and for analyzing international differences in willingness to participate. Furthermore, this allows to recruit respondents on other social network sites like "Google+", "Twitter" etc. On that account, the online survey can be adjusted and generalized (for instance: the word "Facebook" could be exchanged by "Social Network Site" and such). Due to the little inclination of Universities (of Applied Sciences) to participate in the study, we eventually have to find other opportunities and methods to reach our objectives. We consider to possibly write official letters (signed by an official person or institution) or calling the respective institutions.

References

Bandura, Albert. 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs New Jersey: Prentice-Hall.

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Heider, Fritz. 1946. Attitudes and Cognitive Organization. *The Journal of Psychology 21*: 107-112.

http://psychclassics.yorku.ca/Heider/attitudes.htm (accessed: december 11, 2013).

Extract of the Master Thesis
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Rational Choice Sociology: Theory and Empirical Applications
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Advisor: Prof. Dr. Mühler
Duration of Process: Feb. 11 to Jul. 14, 2014
Grade: 1,0 (very good)
E-Mail: s.sterl89@googlemail.com

Rational Choice Sociology: Theory and Empirical Applications
Workshop at Venice International University, San Servolo
November 10 till November 13, 2014

Presentation of the Master Thesis

"The Influence of the Social Network Site Facebook on the Users' Educational Participation and Consumer Behavior."

A Quantitative Empirical Research.

Marc Graupner, M.A.[1]
Sebastian Sterl, B.A.[2]

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Structure

I Motivation

Current State of Research

Structure

II Theory

Used Theories for Educational Participation and Consumer Behavior, Derivation of Hypotheses

Structure

III Methodical Implementation

General Implementation, Operationalization, Statistical Methods, Results

Structure

IV Future Prospects

Critical Aspects, Prospective Integration of New Items

Structure

I Motivation	**Current State of Research**
II Theory	**Used Theories for Educational Participation and Consumer Behavior, Derivation of Hypotheses**
III Methodical Implementation	**General Implementation, Operationalization, Statistical Methods, Results**
IV Future Prospects	**Critical Aspects, Prospective Integration of New Items**

I Motivation

- Primary function of SNS Facebook as communication medium for a large proportion of society
- Challenge for modern social scientists: investigating “research area“ Facebook, interconnections between members, and its role for their cognitive structures and behavior
- Due to new formation in 2004: currently only a few social-scientific studies which investigate these individual and personal traits of participating actors
- In our Master Thesis: realization of a research process on this important topic

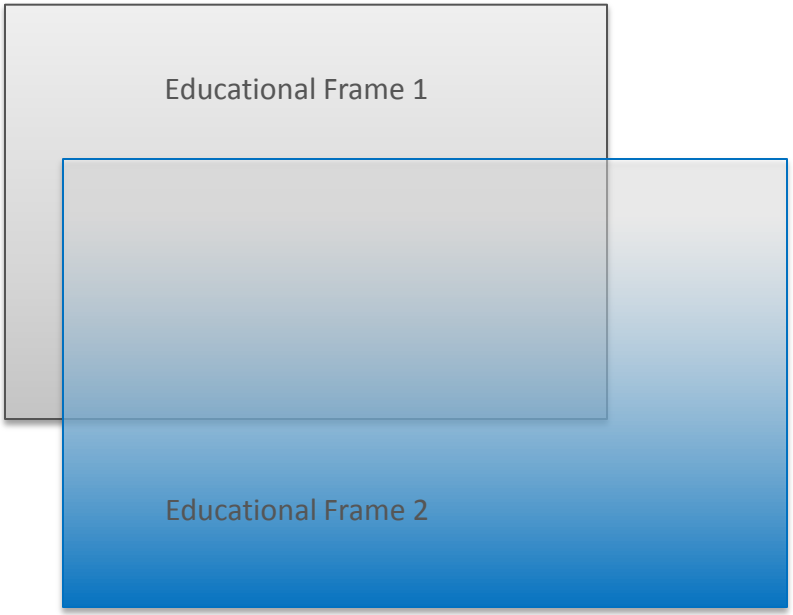
II Theory: Used Theories for Learning Opportunities on Facebook

1. “Strukturale Bildungstheorie“ by Winfried Marotzki (1990)

II Theory: Used Theories for Learning Opportunities on Facebook

1. "Strukturale Bildungstheorie" by Winfried Marotzki (1990)

2. Extensions Based on Halbwachs (1985a, 1985b) and Nohl & Ortlepp



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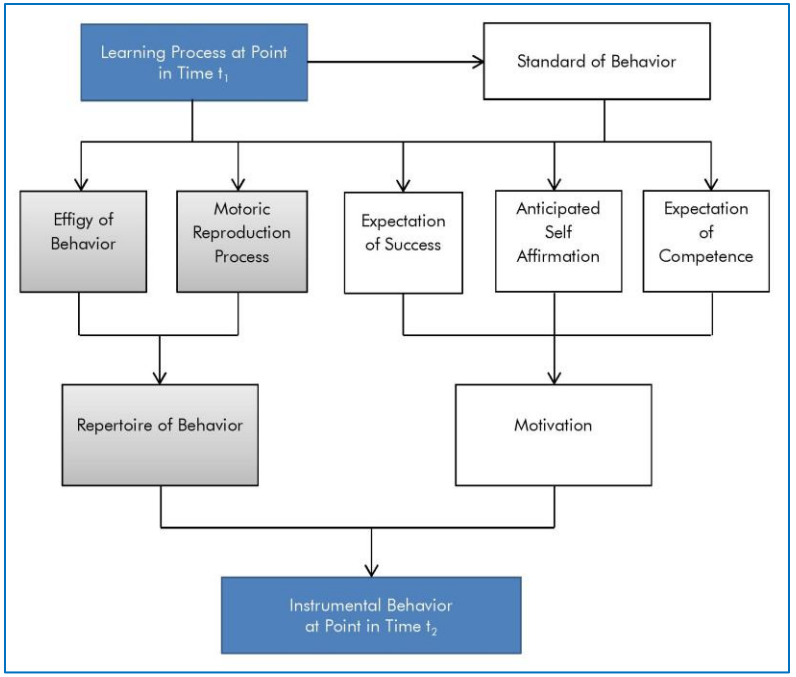
II Theory: Used Theories for Learning Opportunities on Facebook

3. Social-Cognitive Learning Theory and Model Learning by Albert Bandura (1979)



source: Bodemann et al. 2004, S. 231

II Theory: Used Theories for Learning Opportunities on Facebook

1. “Strukturale Bildungstheorie“ by Winfried Marotzki (1990)

2. Extensions Based on Halbwachs (1985a, 1985b) and Nohl & Ortlepp

3. Social-Cognitive Learning Theory and Model Learning by Albert Bandura (1979)

II Theory: Derived Hypotheses for Learning Opportunities on Facebook

No.	Verbalization
1	The more friends a person on Facebook has with at least one contact in the last month, the higher is the use of learning opportunities on Facebook. (Strukturale Bildungstheorie)

II Theory: Derived Hypotheses for Learning Opportunities on Facebook

No.	Verbalization
2	The more often a person gets new friends on Facebook, the higher is the use of learning opportunities on Facebook. (Strukturale Bildungstheorie)

II Theory: Derived Hypotheses for Learning Opportunities on Facebook

No.	Verbalization
3	The more data from the past (photographs in association with subjective important persons, activities, locations) are saved on the Facebook profile of a person, the higher is the use of learning opportunities on Facebook. (Strukturale Bildungstheorie)

II Theory: Derived Hypotheses for Learning Opportunities on Facebook

No.	Verbalization
4	The more often friends post visible educational aspects (newspaper articles or similar) on Facebook, the higher is the use of learning opportunities on Facebook. (Social Cognitive Learning Theory)

II Theory: Derived Hypotheses for Learning Opportunities on Facebook

No.	Verbalization
5	The more a person uses Facebook, the higher is the use of learning opportunities on Facebook. (Social Cognitive Learning Theory)

II Theory: Derived Hypotheses for Learning Opportunities on Facebook

No.	Verbalization
1	The more friends a person on Facebook has with at least one contact in the last month, the higher is the use of learning opportunities on Facebook. (Strukturale Bildungstheorie)
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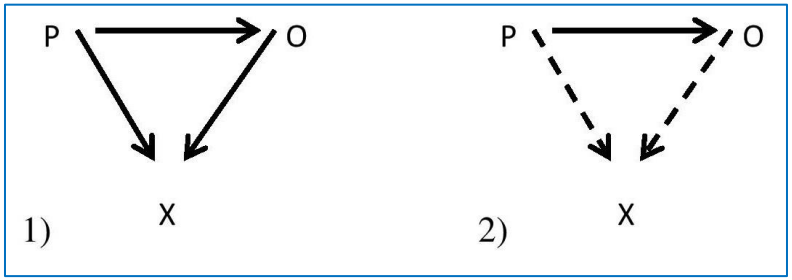
5	The more a person uses Facebook, the higher is the use of learning opportunities on Facebook. (Social Cognitive Learning Theory)

II Theory: Used Theories for Consumer Behavior Influenced by Facebook

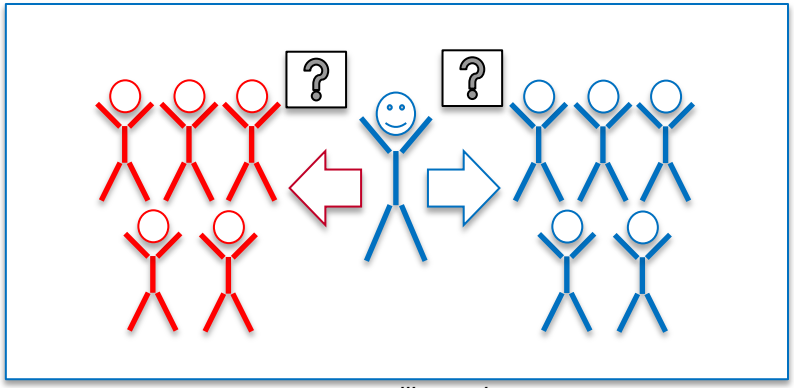
1. Balance Theory by Fritz Heider (1946)



source: own illustration, Heider 1946

II Theory: Used Theories for Consumer Behavior Influenced by Facebook

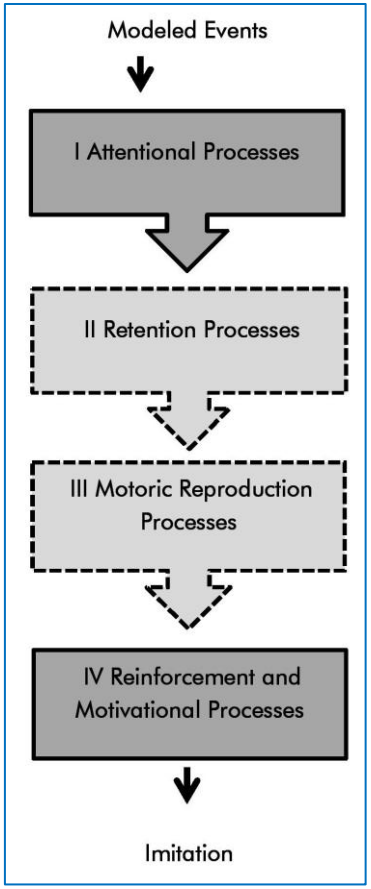
2. Theory of Social Comparison Processes by Leon Festinger (1954)



source: own illustration

II Theory: Used Theories for Consumer Behavior Influenced by Facebook

3. Social-Cognitive Theory by Albert Bandura (1986)



source: own illustration, Bandura 1976, S. 31

II Theory: Used Theories for Consumer Behavior Influenced by Facebook

1. Balance Theory by Fritz Heider (1946)

2. Theory of Social Comparison Processes by Leon Festinger (1954)

3. Social-Cognitive Theory by Albert Bandura (1986)

II Theory: Derived Hypotheses for Consumer Behavior Influenced by Facebook

No.	Verbalization
1	The more an actor tends to positively closed triads, the higher is the consumer behavior influenced by Facebook. (Balance Theory)

II Theory: Derived Hypotheses for Consumer Behavior Influenced by Facebook

No.	Verbalization
2	The more relevant a person is as a person of comparison – concerning the respondent´s vision of consumption (similarity of age, sex, status of friendship) – , the higher is the consumer behavior influenced by Facebook. (Theory of Social Comparison Processes)

II Theory: Derived Hypotheses for Consumer Behavior Influenced by Facebook

No.	Verbalization
3	The more relevant positive opinions of persons of comparison (Facebook friends) are, the higher is the consumer behavior influenced by Facebook. (Theory of Social Comparison Processes)

II Theory: Derived Hypotheses for Consumer Behavior Influenced by Facebook

No.	Verbalization
4	The more an actor observes negative consumer´s experience of Facebook friends, the higher is the consumer behavior influenced by Facebook. (Social-Cognitive Theory)

II Theory: Derived Hypotheses for Consumer Behavior Influenced by Facebook

No.	Verbalization
5	The more an actor observes positive social signals from persons with a high status on Facebook, the higher is the consumer behavior influenced by Facebook. (Social-Cognitive Theory)

II Theory: Derived Hypotheses for Consumer Behavior Influenced by Facebook

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1	The more an actor tends to positively closed triads, the higher is the consumer behavior influenced by Facebook. (Balance Theory)
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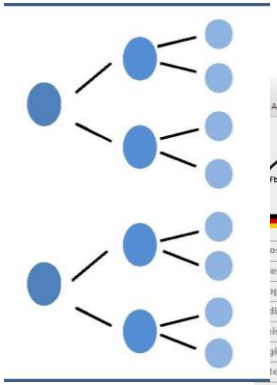
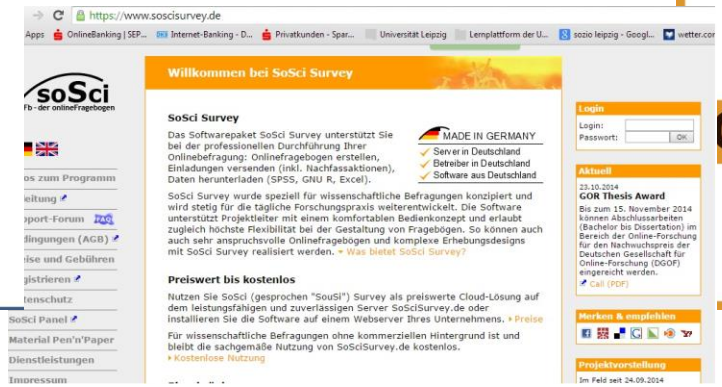
5	The more an actor observes positive social signals from persons with a high status on Facebook, the higher is the consumer behavior influenced by Facebook. (Social-Cognitive Theory)

III Methodical Implementation: General Implementation

- Inquire period: 15 February 2014 to 16 April 2014
- Pyramid scheme
- Self-designed online survey (www.soscisurvey.de)
- Distributed on Facebook, black boards, internet forums, Universities (of Applied Sciences), student representatives, EDPC of Universities)
- Drawing to win four AMAZON coupons of 30€ each and/or getting an abstract of our study



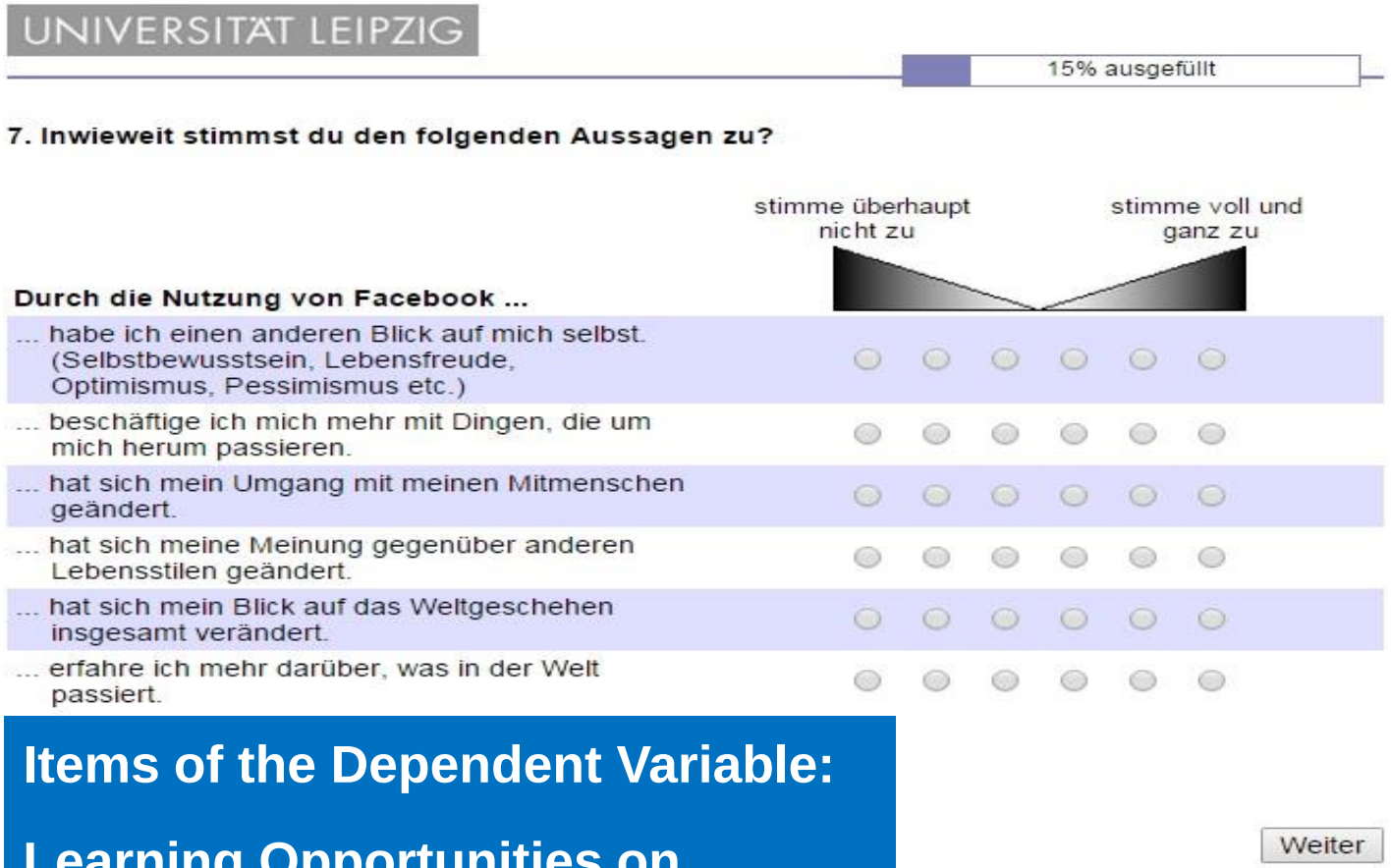


III Methodical Implementation: Operationalization

Items of the Dependent Variable:

Learning Opportunities on Facebook

III Methodical Implementation: Operationalization



Items of the Dependent Variable:

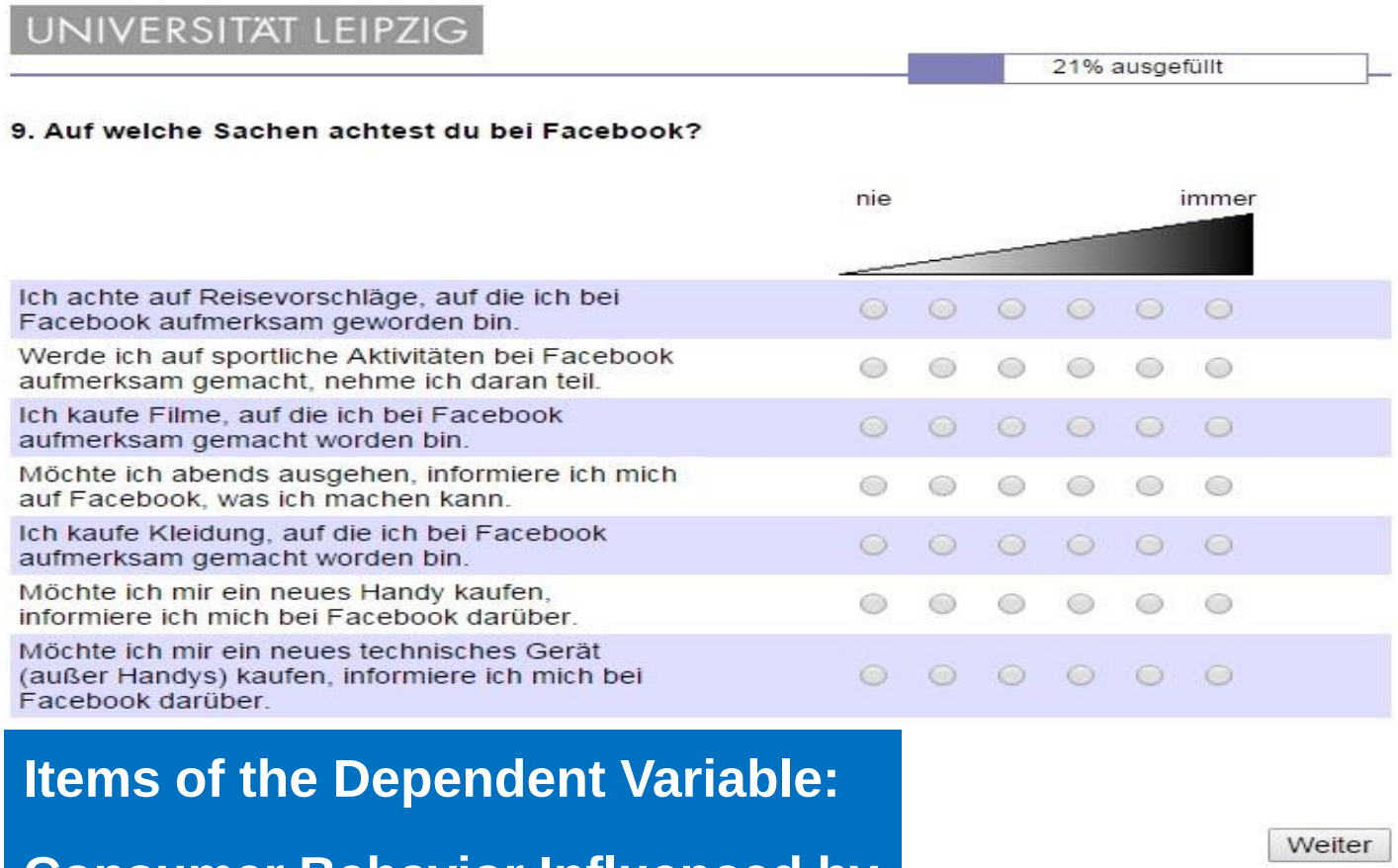
Learning Opportunities on Facebook

III Methodical Implementation: Operationalization

Items of the Dependent Variable:

Consumer Behavior Influenced by Facebook

III Methodical Implementation: Operationalization


UNIVERSITÄT LEIPZIG

21% ausgefüllt

9. Auf welche Sachen achtest du bei Facebook?

	nie					immer
Ich achte auf Reisevorschläge, auf die ich bei Facebook aufmerksam geworden bin.	○	○	○	○	○	○
Werde ich auf sportliche Aktivitäten bei Facebook aufmerksam gemacht, nehme ich daran teil.	○	○	○	○	○	○
Ich kaufe Filme, auf die ich bei Facebook aufmerksam gemacht worden bin.	○	○	○	○	○	○
Möchte ich abends ausgehen, informiere ich mich auf Facebook, was ich machen kann.	○	○	○	○	○	○
Ich kaufe Kleidung, auf die ich bei Facebook aufmerksam gemacht worden bin.	○	○	○	○	○	○
Möchte ich mir ein neues Handy kaufen, informiere ich mich bei Facebook darüber.	○	○	○	○	○	○
Möchte ich mir ein neues technisches Gerät (außer Handys) kaufen, informiere ich mich bei Facebook darüber.	○	○	○	○	○	○

Weiter

Items of the Dependent Variable:

Consumer Behavior Influenced by Facebook

III Methodical Implementation: Statistical Methods

- Extensive operationalization
- Coding of variables
- Scale building
- Univariate analysis
- Bivariate analysis (correlations, ANOVA, scatter Plots, log-transformation for reaching homoskedasticity)
- Checking of robustness due to the influence of control variables (regression analysis for each hypothesis)
- Regression analysis
- Checking of mediation influence
- (Artificial) neural network (sensitive analysis for comparing the strenghts of influence by beta-coefficients of regressions models)

III Methodical Implementation: Results

Independent Variables	Dependent Variable: Learning Opportunities on Facebook						
		Model Number					
	r	1	2	3	4	5	6
Variables of Theoretical Model							
Number of Facebook Friends	0,24**	0,11**	0,10**			0.07**	**0,06***
Frequency of new Facebook Friends	0,27**	0,20**	0,20**			0,15**	**0,14****
Data From the Past	0,24**	0,17**	0,16**			0,14**	**0,13****
Posts of Learning Aspects of Facebook Friends	0,33**			0,31**	0,33**	0,24**	**0,26****
Frequency of Using Facebook (per Week)[1]	0,22**			0,17**	0,16**	0,15**	**0,15****
Control Variables							
Age (in Years)	-0,03		-0,01		-0,02		0,00
Education (in years)	-0,06*		-0,01		-0,03		-0,01
Income 250 to Below 500€[2]	0,16[6]		0,07+		0,08*		0,07*
Income 500 to Below 1000€[2]	0,20[6]*		0,07+		0,10**		0,08*
Income Above 1000€[2]	0,11[6]		0,05		0,08+		0,06
Man[3]	0,07**		0,07**		0,11**		0,10**
East Germany[4]	0,06*		0,06*		0,04		0,04+
Student[5]	0,04		0,03		0,06+		0,04
Facebook Membership (in Years)	0,10**		0,05*		0,09**		0,06*
(Adjusted) R^2		0,12**	0,13**	0,14**	0,17**	0,20**	0,22**
Number of Observations	1400	1400	1400	1400	1400	1400	1400

Note: [1] Logarithmised Variable; [2] Reference Category: Income Below 250€; [3] Reference Category: Woman; [4] Reference Category: West Germany; [5] Reference Category: no Student; [6] Result of Univariate ANOVA Based on Scheffe-Test (Relating to Reference Category)
** p < 0,01; * p < 0,05; + p < 0,1

Dependent Variable: Learning Oppurtunities on Facebook

III Methodical Implementation: Results

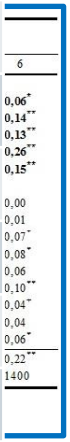
Independent Variable	Dependent Variable: Consumer Behavior Influenced by Facebook (log)								
	Model Number								
	r	1	2	3	4	5	6	7	8
Variables of Theoretical Model									
Tendency to Positively Closed Triads (log)	0.30**	0.30**	0.28**					0.12**	**0.12****
Relevance of Similarity to Persons of Comparison	0.06*			0.01	0.00			-0.01	-0.02
Relevance of Positive Opinions of Persons of Comparison (log)	0.44**			0.44**	0.44**			0.32**	**0.33****
Observations of Negative Consumer´s Experience	-0.10**					-0.10*	-0.05*	-0.01	-0.00
Observations of Positive Signals From Persons With a High Status	0.40**					0.40**	0.37**	0.23**	**0.21****
Control Variables									
Age (in Years)	-0.17**		-0.15**		-0.17**		-0.13**		-0.15**
Education (in Years)	-0.06*		-0.03		-0.04		-0.05*		-0.03
Income 250 to Below 500€ (ref.: Income Below 250€)	0.09[1]*		0.10**		0.10**		0.11**		0.09**
Income 500 to Below 1000€ (ref.: Income Below 250€)	0.10[1]**		0.13**		0.15**		0.14**		0.13**
Income Above 1000€ (ref.: Income Below 250€)	-0.01[1]		0.11**		0.09*		0.10**		0.09*
Man (ref.: Woman)	-0.04		-0.01		-0.03		0.02		0.01
East Germany (ref.: West Germany)	0.05*		0.06*		0.02		0.05+		0.03
Student (ref.: no Student)	0.11**		0.10**		0.08**		0.11**		0.11**
Frequency of Using Facebook (per Week)	0.20**		0.16**		0.16**		0.12**		0.11**
(Adjusted) R^2		0.09*	0.16**	0.20**	0.27**	0.16**	0.22**	0.27**	0.33**
Number of Observations	1358	1358	1358	1358	1358	1358	1358	1358	1358

Notes: [1] Result of Univariate ANOVA Based on Scheffe-Test (Relating to Reference Category); **p<0.01; *p<0.05; +p<0.1

Dependent Variable: Consumer Behavior Influenced by Facebook

III Methodical Implementation: Results

Multiple Regression (Beta-Coefficients)	
Independent Variables	**Rank Order**
Reading Educational Aspects	1
Frequency of Using Facebook	2
Frequency of new Facebook Friends	3
Data From the Past	4
Number of Facebook Friends	5
Man	6
Income	7
Facebook Membership	8
East Germany	9
Student	10
Education	11
Age	12



Neural Network (Sensitive Analysis)	
Independent Variables	**Rank Order**
Frequency of Using Facebook	1
Data From the Past	2
Reading Educational Aspects	3
Number of Facebook Friends	4
New Facebook Friends	5
Age	6
Facebook Membership	7
Man	8
Income	9
Student	10
Education	11
East Germany	12

III Methodical Implementation: Results

Multiple Regression (Beta-Coefficients)	
Independent Variables	**Rank Order**
Reading Educational Aspects	1
Frequency of Using Facebook	
Frequency of new Facebook Friends	2
Data From the Past	3
Number of Facebook Friends	4
Man	5

Neural Network (Sensitive Analysis)	
Independent Variables	**Rank Order**
Frequency of Using Facebook	1
Data From the Past	
Reading Educational Aspects	2
Number of Facebook Friends	3
New Facebook Friends	4
Age	5

Independent Variables		Dependent Variable: Learning Opportunities on Facebook (Model Number)					
	r	1	2	3	4	5	6
Variables of Theoretical Model							
Number of Facebook Friends	0,24**	0,11**	0,10**			0,07**	**0,06***
Frequency of new Facebook Friends	0,27**	0,20**	0,20**			0,15**	**0,14****
Data From the Past	0,24**	0,17**	0,16**			0,14**	**0,13****
Posts of Learning Aspects of Facebook Friends	0,33**			0,31**	0,33**	0,24**	**0,26****
Frequency of Using Facebook (per Week)[1]	0,22**			0,17**	0,16**	0,15**	**0,15****
Control Variables							
Age (in Years)	-0,03		-0,01		-0,02		0,00
Education (in years)	-0,06*		-0,01		-0,03		-0,01
Income 250 to Below 500€[2]	0,16[0]		0,07*		0,08*		0,07*
Income 500 to Below 1000€[2]	0,20[0]*		0,07*		0,10**		0,08*
Income Above 1000€[2]	0,11[0]		0,05		0,08+		0,06
Man[3]	0,07**		0,07**		0,11**		0,10**
East Germany[4]	0,06*		0,06*		0,04		0,04*
Student[5]	0,04		0,03		0,06+		0,04
Facebook Membership (in Years)	0,10**		0,05*		0,09**		0,06*
(Adjusted) R^2		0,12**	0,13**	0,14**	0,17**	0,20**	0,22**
Number of Observations	1400	1400	1400	1400	1400	1400	1400

Note: [1] Logarithmised Variable; [2] Reference Category: Income Below 250€; [3] Reference Category: Woman; [4] Reference Category: West Germany; [5] Reference Category: no Student; [0] Result of Univariate ANOVA Based on Scheffe-Test (Relating to Reference Category)
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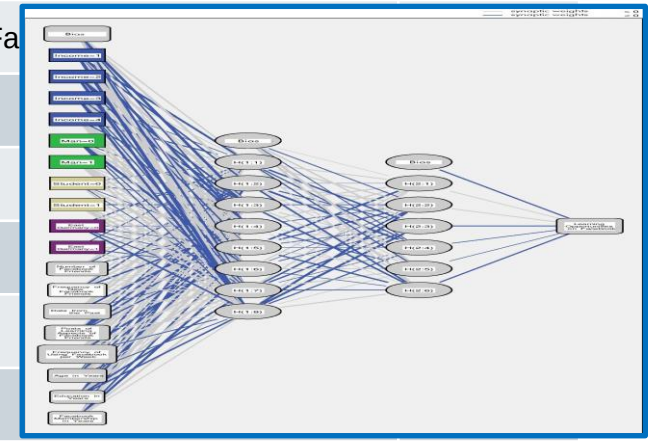

III Methodical Implementation: Results

Multiple Regression (Beta-Coefficients)	
Independent Variables	**Rank Order**
Relevance of Positive Opinions of Persons of Comparison (Hypothesis 3)	1
Observations of Positive Signals From Persons With a High Status (Hypothesis 5)	2
Tendency of Positively Closed Triads (Hypothesis 1)	3
Relevance of Similarity to Persons of Comparison (Hypothesis 2)	4
Observations of Negative Consumer´s Experience (Hypothesis 4)	5

Neural Network (Sensitive Analysis)	
Independent Variables	**Rank Order**
Relevance of Positive Opinions of Persons of Comparison (Hypothesis 3)	1
Observations of Positive Signals From Persons With a High Status (Hypothesis 5)	2
Tendency of Positively Closed Triads (Hypothesis 1)	3
Relevance of Similarity to Persons of Comparison (Hypothesis 2)	4
Observations of Negative Consumer´s Experience (Hypothesis 4)	5

	r	1	2	3	4	5	6	7	8
Variables of Theoretical Model									
Tendency to Positive Closed Triads[1]	0.30**	0.30**	0.28**					0.12**	**0.12****
Relevance of Similarity to Persons of Comparison	0.06*			0.01	0.00			-0.01	-0.02
Relevance of Positive Opinions of Persons of Comparison[1]	0.44**			0.44**	0.44**			0.32**	**0.33****
Observations of Negative Consumer´s Experience	-0.10**					-0.10*	-0.05*	-0.01	-0.00
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Control Variables									
Age (in Years)	-0.17**		-0.15**		-0.17**		-0.13**		-0.15**
Education (in Years)	-0.06*		-0.03		-0.04		-0.05*		-0.03
Income 250 to Below 500€ (ref.: Income Below 250€)	0.09[1]*		0.10**		0.10**		0.11**		0.09**
Income 500 to Below 1000€ (ref.: Income Below 250€)	0.10[1]**		0.13**		0.15**		0.14**		0.13**
Income Above 1000€ (ref.: Income Below 250€)	-0.01[1]		0.11**		0.09*		0.10**		0.09*
Man (ref.: Woman)	-0.04		-0.01		-0.03		0.02		0.01
East-Germany (ref.: West Germany)	0.05*		0.06*		0.02		0.05*		0.03
Student (ref.: no Student)	0.11**		0.10**		0.08**		0.11**		0.11**
Frequency of Using Facebook (per Week)	0.20**		0.16**		0.16**		0.12**		0.11**
(Adjusted) R^2		0.09*	0.16**	0.20**	0.27**	0.16**	0.22**	0.27**	0.33**
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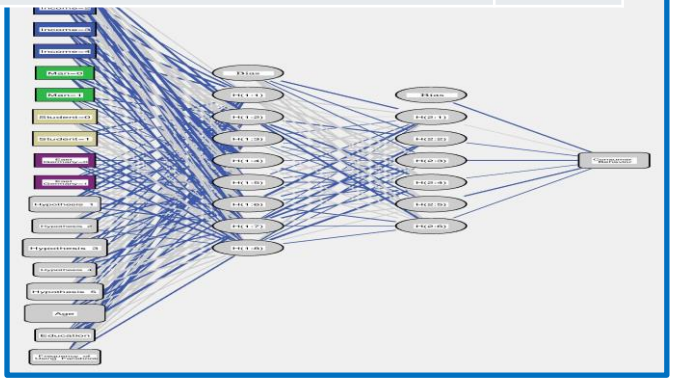

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Independent Variable	Dependent Variable: Consumer Behavior Influenced by Facebook							
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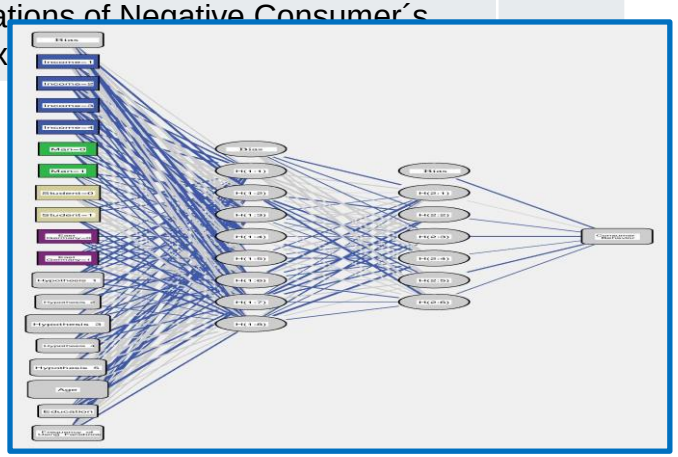

IV Future Prospects

First Problem:
Gender´s Distribution
(Women: 66%, Men: 34%)

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Explanation:
Women are socially more compliant

IV Future Prospects

First Problem:
Gender´s Distribution
(Women: 66%, Men: 34%)

Explanation:
Women are socially more compliant

Possible Solution:
Integration of a truncated Big-Five-Scale for contolling this

IV Future Prospects

Second Problem:
no English translation

IV Future Prospects

Second Problem:
no English translation

Why is that important?:
Interesting to control cultural differences between several countries, getting a higher number of observations

IV Future Prospects

Second Problem:
no English translation

Why is that important?:
Interesting to control cultural differences between several countries, getting a higher number of observations

The only way out:
German and English version of the questionnaire

IV Future Prospects

Third Problem:
Only Analyzing Facebook Members

IV Future Prospects

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Why is that important?:
Interesting to observe other SNS like Google+, Twitter etc.

IV Future Prospects

Third Problem:
Only Analyzing Facebook Members

Why is that important?:
Interesting to observe other SNS like Google+, Twitter etc.

The only way out:
Adjusting and generalizing items, distributing questionnaires on these SNS

IV Future Prospects

Fourth Problem:
Little Inclination of Universities (of Apllied Sciences) to participate

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Explanation:
Too much attempts of other students; only official surveys acceptable

IV Future Prospects

Fourth Problem:
Little Inclination of Universities (of Apllied Sciences) to participate

Explanation:
Too much attempts of other students; only official surveys acceptable

Possible Solution:
Considering writting official letters (signed by an official person or instituion); calling the respective institutions

IV Future Prospects

Fifth Problem: Predominance of Students in the Sample

IV Future Prospects

Fifth Problem: Predominance of Students in the Sample

Explanation:
Most of the Facebook friends are students; distribution on especially University websites

IV Future Prospects

Fifth Problem: Predominance of Students in the Sample

Explanation:
Most of the Facebook friends are students; distribution on especially University websites

Possible Solution:
Distribution of the questionnaire on normal websites, forums, black boards; acquisition of non students in friends list

References

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Rational Choice Sociology: Theory and Empirical Applications
Workshop at Venice International University, San Servolo
November 10 till November 13, 2014

Thank you very much for your attention and interest!

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