

Are Citizens and Businesses (Dis)satisfied with the Public Administration in Germany?

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Main Goals of Paper

- Discuss the German Federal Government's effort to measure and reduce the administrative burdens of citizens and businesses
- Discuss the methodology of the life events approach
- Analyze the results of the 2015 Federal Statistical Office survey on satisfaction with public services
- Use regression analysis to find the key drivers of satisfaction with public administration

Motivation for the measurement of satisfaction with government services

- Commission on the Measurement of Economic Performance and Social Progress (CMEPSP) headed by Stiglitz, et al. (2009)
- Concluded that quality of life or subjective well-being stems from several dimensions including material wealth, health, environment, social connection, but also governance
- Also recommended that official statistical offices should conduct surveys on subjective satisfaction and well-being.
- In particular, the commission recommended the inclusion of indicators on the perception of governance into the programme of national statistics.

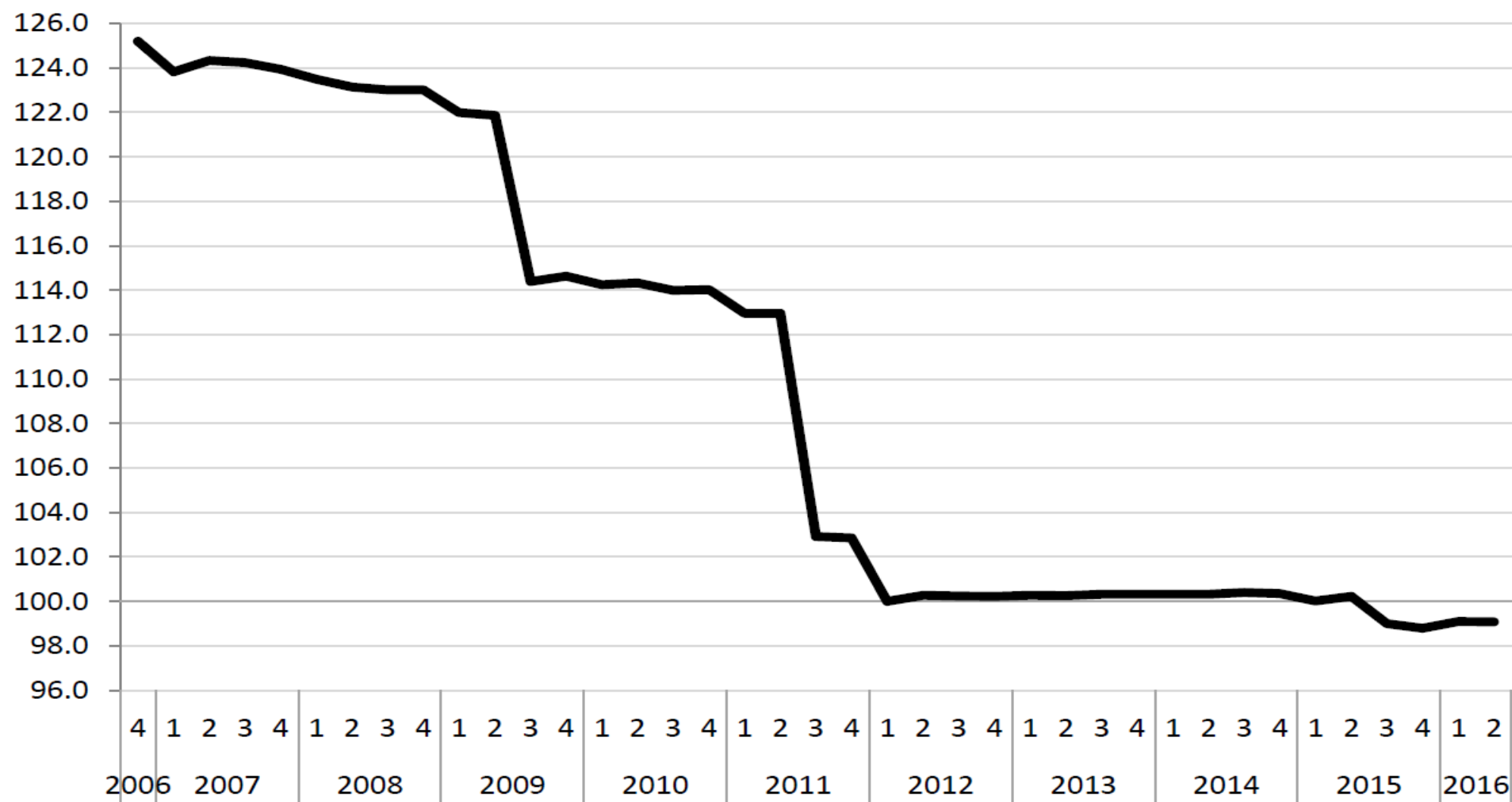
How Much Bureaucracy?

- The invisible hand of Adam Smith leads to the First Theorem of Welfare Economics that claims that under the assumptions of perfect competition market forces lead to a Pareto efficient allocation of resources. Ideally no government intervention.
- Assumptions of perfect competitive markets do not hold: monopolies , for example, and imperfect or asymmetric information.
- The visible hand of the government is needed to ensure an efficient allocation of resources.
- Niskanen's (1968) budget maximising model assumes that public agencies aim to increase their salary, reputation and power or comfort.
- There is a danger that too much bureaucracy can reduce welfare and well-being.

Measuring bureaucratic burdens

- Bureaucracy Reduction and Better Regulation programme adopted by German Federal Government in 2006
- The Federal Government introduced the Standard Cost Model to support the measure administrative burdens in a systematic, standardized way.
- The target was set for a 25% reduction in the cost of “red tape”.
- This target was achieved in 2012.

Figure 3: Development of administrative burdens since 2006



January 2012 = 100

Perception of administrative burden

- However, the perception of burden due to red tape has not changed in recent years.
- Non-representative, online surveys of industrial medium-sized companies show that in 2013 almost 90% of businesses thought that administrative burdens have increased in the previous five years
- In 2015, more than 80% of businesses had that impression. Only a small minority believe that these costs have remained constant. Virtually no one considers them to be lower than before
- Subjective perception does not match official statistics.

The life events approach

- The Federal Government decided to analyze the subjective factors more thoroughly and to change the perspective from laws to life events.
- The French Secretariat-General for Government Modernisation (SGMAP) has developed this method and has run similar examinations since 2008
- The basic idea is that a “life event” initiates a “customer journey” through a number of government agencies.
- The user’s subjective experience in this journey through bureaucracy is recorded and analyzed.

Selecting the life events

- The Federal Statistical Office initially compiled a list of 33 life events for citizens and 22 situations for companies
- For citizens, 22 life events were selected based on an online survey with 1,000 interviews
- For businesses, 10 life events were selected based on discussions with business associations, trade unions and federal ministries, who ranked life events according to their importance.
- Customer journeys for each life event were mapped and used to develop a questionnaire for each survey.

An Example of Customer Journey Mapping



Table 1: Citizen life events

Vocational training	Marriage/same-sex partnership	Poverty in old age
Higher education	Divorce/dissolution of same-sex partnership	Patient decree
Beginning of career	Birth of a child	Long-term sickness
Driving licence	Government help with childcare	Disability
Vehicle registration	Moving house	Care dependency
Unemployment	Buying a property	Death of a family member/close friend
Financial problems	Retirement	Voluntary work for a club or society
Starting second job		

Table 2: Business life events

Business start-up	Construction of an establishment
Finance and taxes	Research & development, patent and trademark protection
Appointment of employees	Participation in tendering process
Vocational and continuing training	Importing/exporting
Health and safety at work	Discontinuation or transfer of business

The 16 Factors of Satisfaction

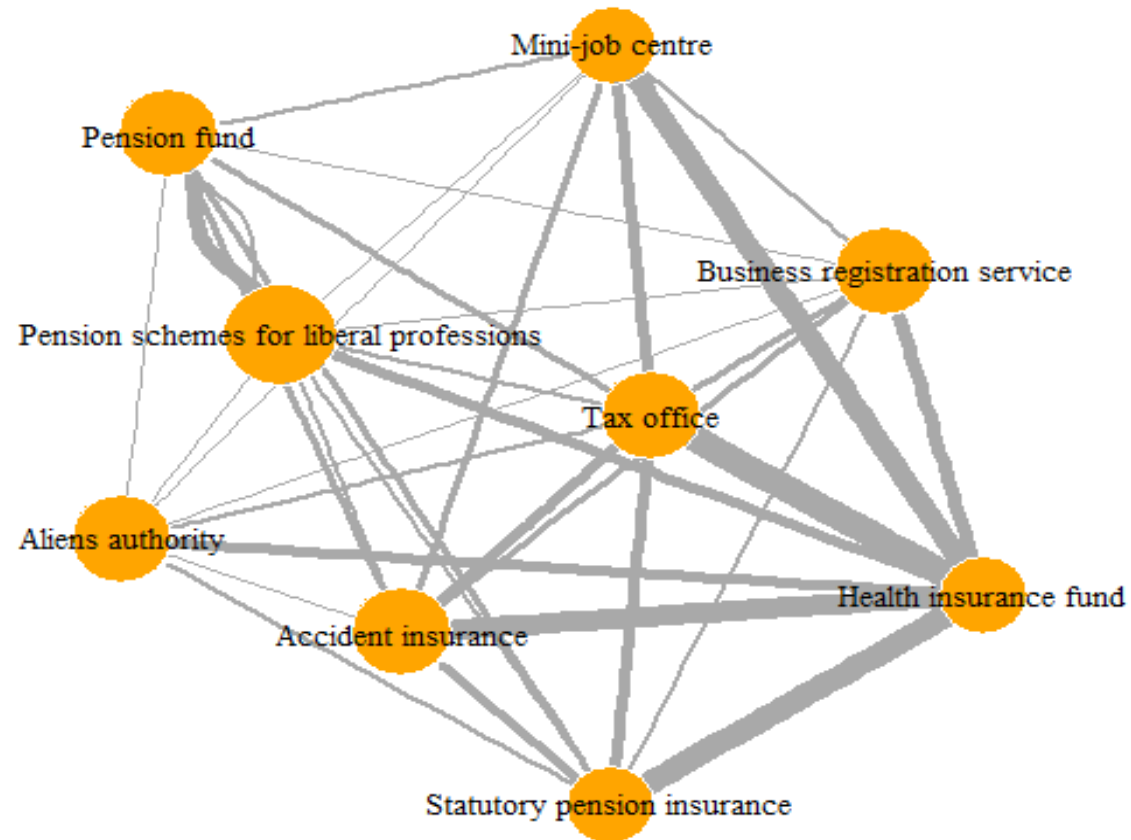
Table 3: Factors of satisfaction

Information on the stages of the process	Access to the right office	Expertise of staff
Comprehensibility of the forms	Spatial accessibility	Overall duration of process
Access to necessary forms	Opening hours	Trustworthiness of the authority
Option of e-government	Waiting times	Non-discrimination
	Information on the further course of action	Incorruptibility
	Helpfulness of staff	Comprehensibility of the law

Network analysis

- A network analysis can be applied to identify the most important agencies in a life event.

Network for
“appointment of employees”



Survey design and sampling

- The social research institute TNS Infratest questioned 1,572 businesses on 1,865 life events and 5,666 citizens on 7,250 life events.
- Each respondent could assess their contact with no more than three typical public agencies per life event.
- User satisfaction on each of 16 factors for an agency was rated on an ordinal, five-point Likert scale ranging from “very satisfied” to “somewhat satisfied” to “neither satisfied or dissatisfied” to “somewhat dissatisfied” to “very dissatisfied” (coded -2 to 2).
- Each interviewee could also answer an “all-in-all” question on her satisfaction with another five agencies.
- Respondents could also state the importance of each of the 16 factors.

Satisfaction of citizens with government services in selected situations

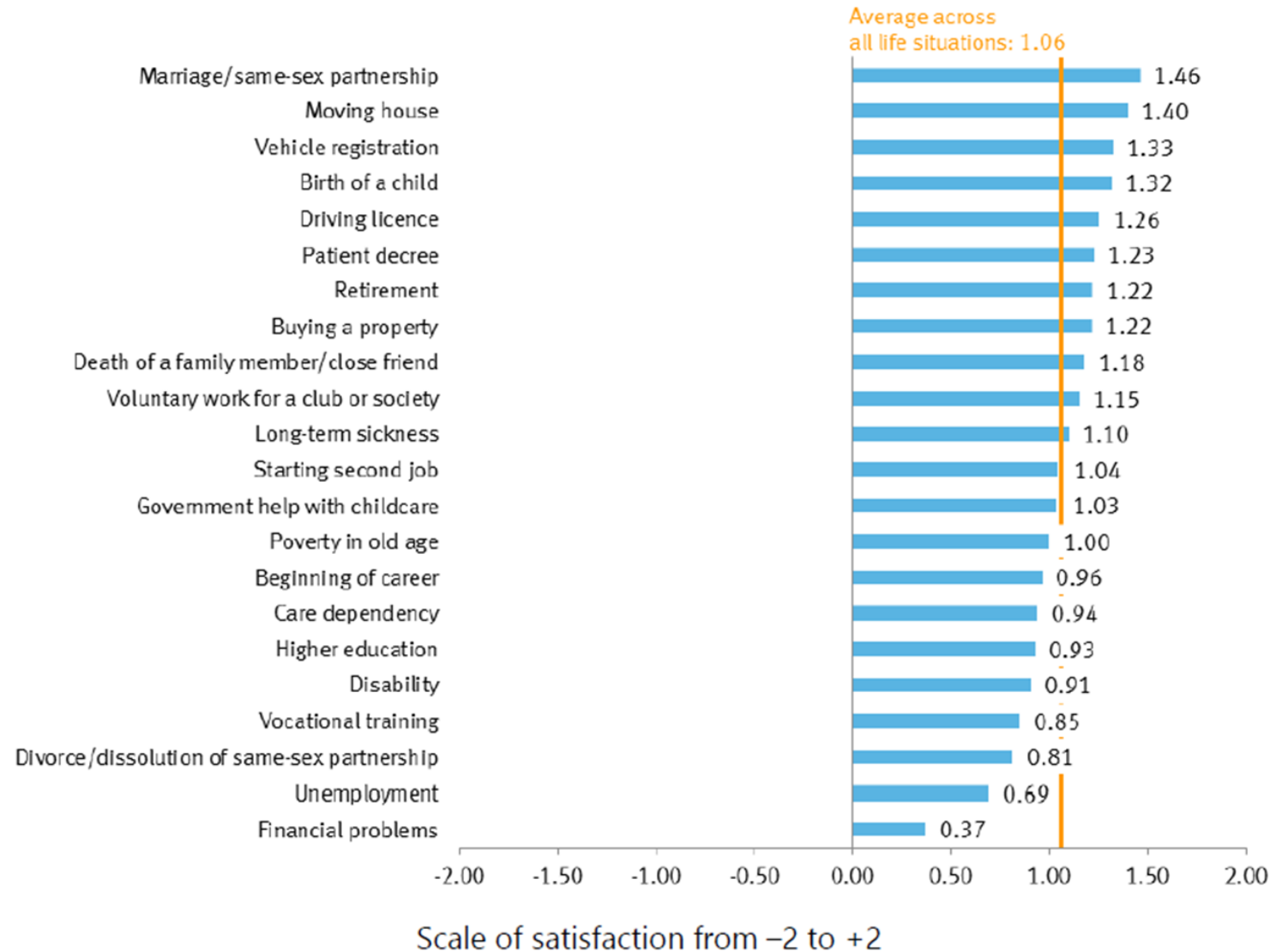
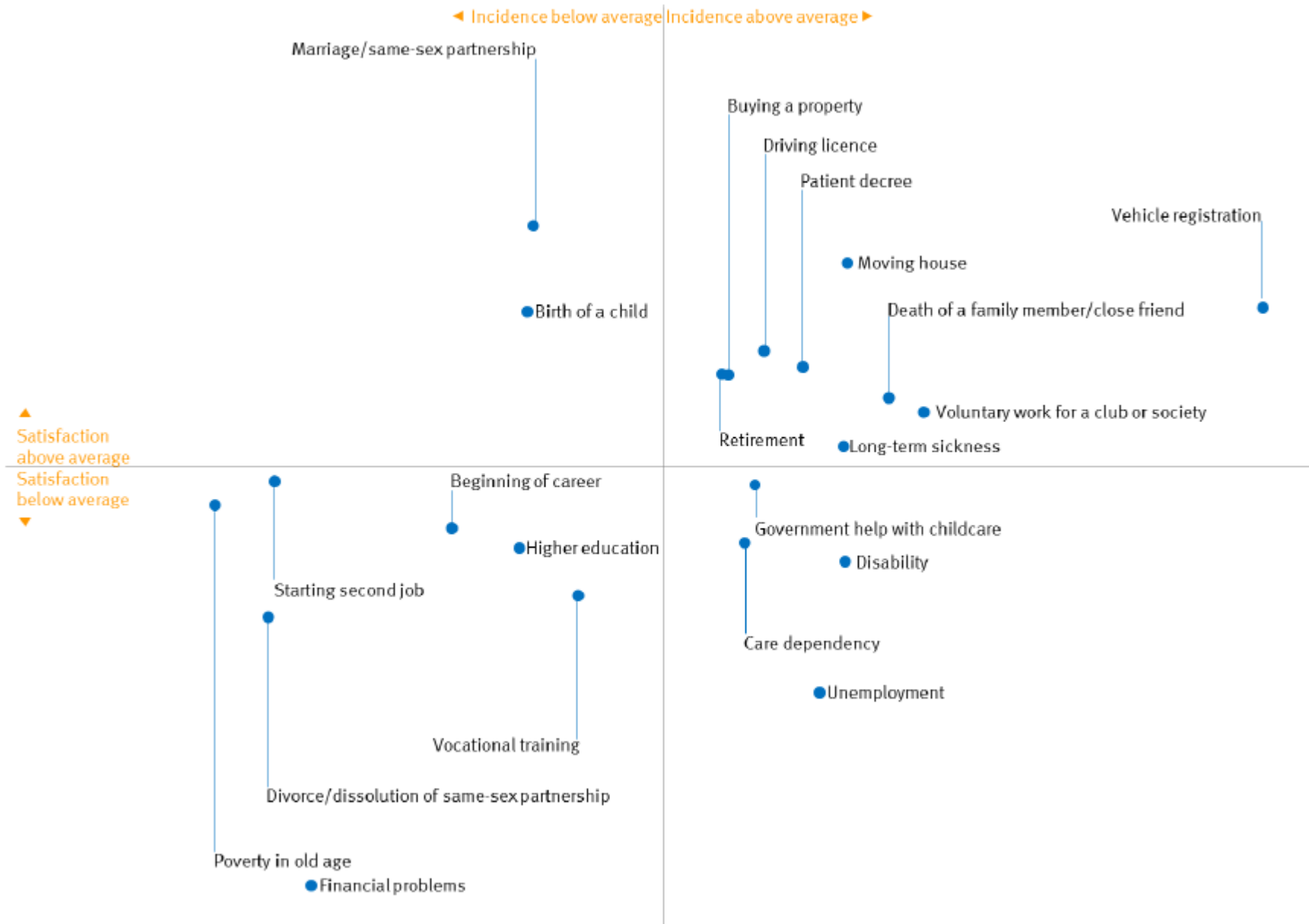


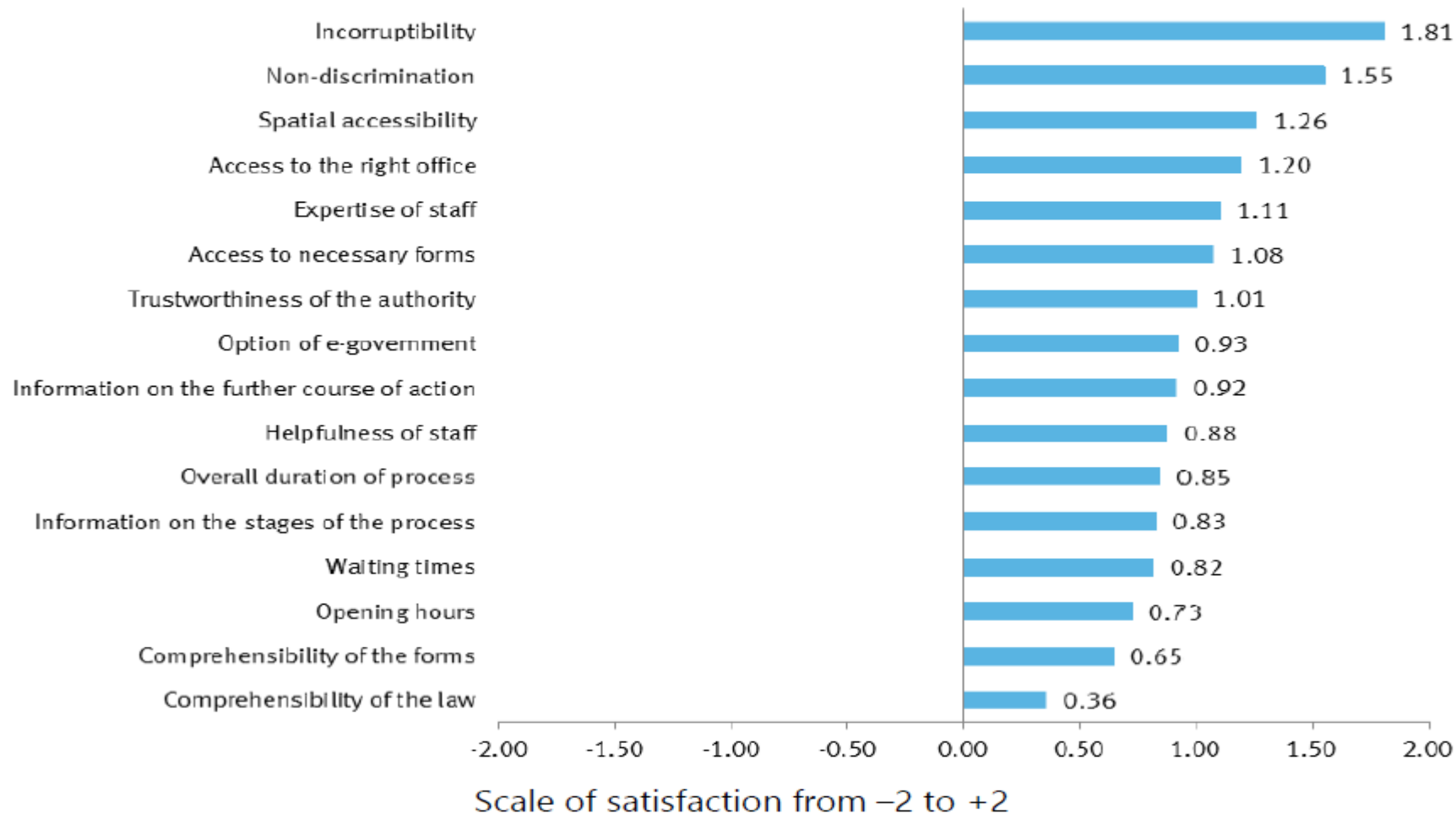
Figure 9: General satisfaction and incidence of the life events



Based on Statistisches Bundesamt (2015, p. 12).

How did citizens rate public authorities on the 16 satisfaction actors?

Figure 10: Satisfaction with various factors affecting public services



Based on Statistisches Bundesamt (2015, p. 10).

Table 4: Descriptive overview of citizens' level of satisfaction

Variables		Satisfaction (–2 to +2)	No. of respondents	No. of agencies ¹
Gender	Female	+1.08	2898	6259
	Male	+1.05	2532	4986
Age in years	16–29	+0.90	909	2303
	30–49	+1.03	1975	4381
	50+	+1.07	2525	4529
School leaving certificate of... (years of schooling) ²	<i>Hauptschule (9–10)</i>	+1.10	973	1971
	<i>Realschule (10)</i>	+1.07	1950	4006
	<i>Gymnasium (12–13)</i>	+1.04	2393	5056
Settlement structure ³	Urban centres	+1.00	1317	2702
	Urbanised surrounding areas	+1.12	1376	2840
	Rural surrounding areas	+1.04	1373	2822
	Rural areas	+1.09	1366	2886
Intended objective achieved	Yes or partly ⁴	+1.07	3688	7710
	No	+0.17	248	467

¹ Each respondent can have contacted and rated multiple agencies.

² Details on the German education system: OECD (2013).

³ Definition of Bundesinstitut für Bau-, Stadt- und Raumforschung (2013).

⁴ Includes on-going procedures.

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Multiple Regression Analysis

- An ordered logistic regression model is applied here
- The “all-in-all” question about the general satisfaction with the authorities is employed as dependent variable instead of the calculated average of the 16 factors of satisfaction
- The worst possible level of satisfaction “very dissatisfied” (−2) is used as reference.

Table 5: Ordered logistic regression analysis for citizens' level of satisfaction

Independent variable	Odds ratios			OLS
	Model 1	Model 2	Model 3	Model 4
Age in years	1.014***	1.013***	1.016***	0.007***
Dummy: female	1.072	1.076	1.116*	0.037
Dummy: german nationality	1.017	1.116	1.151	0.050
Dummy: migrant background	1.050	1.048	1.085	0.029
Dummy: single parent	0.838	0.824	0.907	-0.063
Dummy: at least one child	1.172**	1.216***	1.075	0.037
Dummy: urban or urbanised area	0.911*	0.953	0.938	-0.036
Dummy: full-time employee	0.955	0.944	0.887*	-0.072**
Effective education in years	0.972***	0.979**	0.965***	-0.012**
Logarithm of household income per person	1.185***	1.170***	1.008	0.009
Dummy: intended objective not achieved	-	0.095***	0.127***	-1.189***
Dummy: online communication with agency	-	0.691***	0.792***	-0.124***
No. of agencies contacted	-	0.976	0.919**	-0.046**
Dummy: vocational training	-	-	0.405***	-0.463***
Dummy: higher education	-	-	0.398***	-0.480***
Dummy: beginning of career	-	-	0.333***	-0.574***
Dummy: driving licence	-	-	0.865	-0.037
Dummy: unemployment	-	-	0.303***	0.618***
Dummy: financial problems	-	-	0.211***	-0.833***
Dummy: starting second job	-	-	0.772	-0.088
Dummy: marriage/same-sex partnership	-	-	2.525***	0.350***
Dummy: divorce/dissolution of same-sex partnership	-	-	0.303***	-0.648***
Dummy: birth of a child	-	-	0.862	-0.064
Dummy: government help with childcare	-	-	0.877	-0.064
Dummy: moving house	-	-	1.376**	0.126*
Dummy: buying a property	-	-	1.473*	0.096
Dummy: retirement	-	-	1.218	-0.022
Dummy: poverty in old age	-	-	0.441***	-0.372***
Dummy: patient decree	-	-	1.084	0.091
Dummy: long-term sickness	-	-	0.913	-0.090
Dummy: disability	-	-	0.380***	-0.517***
Dummy: care dependency	-	-	0.564***	-0.292***
Dummy: death of a family member/close friend	-	-	0.972	-0.005
Dummy: voluntary work for a club or society	-	-	0.735**	-0.126*
Nagelkerke's Pseudo R ² /Adjusted R ²	0.020	0.104	0.180	0.173
-2 Log Likelihood	19048.787	18446.149	17851.268	-
N (observations)	7292	7292	7292	7292

*** $p > 0.999$; ** $p > 0.99$; * $p > 0.95$

Models

- Model 1 includes citizens' socio-economic variables.
- Model 2 includes variables dealing with interactions with agencies: whether intended objective achieved or not, whether contact with agency was online, and number of agencies contacted.
- Model 3 includes life event fixed effects .
- Model 4 has same independent variables as Model 3, but is estimated with OLS rather than ordered logistic regression. This was done to test for consistency.

Regression Results

- Age is a significant factor in satisfaction with government services. Ten additional years in life experience increase the odds of being more satisfied than the lowest level by 16%.
- Gender was significant, with the odds of a female respondent having a higher level of satisfaction is 1.12 times greater than the odds for males.
- Having a child is significant in Models 1 and 2, but the effect disappears in Model 3 with the addition of life event variables.
- The same is true of household income: it is significant in models 1 and 2, but not significant in Model 3.
- Education is significant in all three models, with each additional year of education decreasing the odds of being “very dissatisfied” by 3%.

Regression Results (II)

- The variables of interaction with public administration are all significant. In particular, when the intended objective is not achieved, the odds of being more satisfied than the lowest level drops by 87%.
- Users of online communication were less likely to be satisfied (odds ratio of 0.792).
- Each additional public agency contacted decreased the odds ratio by 8%.
- The reference category is for life events variable is vehicle registration.
- Life events “financial problems” and “unemployment” decrease satisfaction levels, while “marriage/same-sex partnership” and “moving house” increase the ratings.
- This provides strong support for the life event approach, as satisfaction with public services is dependent on the particular life event a person is experiencing.

Principal Component Analysis

- A principal component analysis allows summarising the 16 factors of satisfaction into smaller groups containing homogenous and connected variables
- The analysis reveals that the 16 original factors of satisfaction can be compressed to four groups.
 - Service quality and competences of public authorities.
 - Comprehensibility of forms, access to forms and options of e-government.
 - Spatial and temporal accessibility
 - Rule of law in the agencies – non-discrimination and incorruptibility

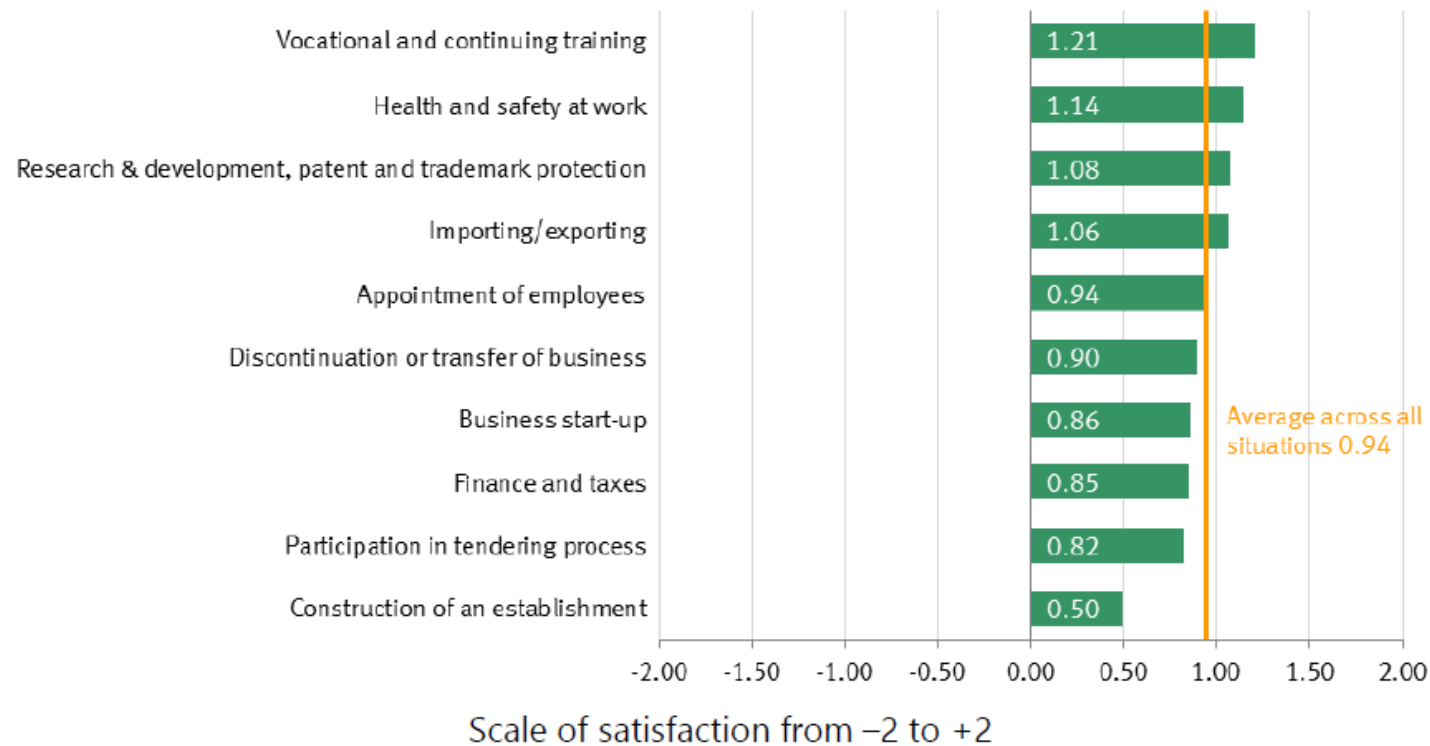
Table 6: Rotated factor-loading matrix

Original factor of satisfaction	Generated factors				Communality
	Service/competence	Comprehensibility	Accessibility	Rule of law	
Information on the stages of the process	0.622	0.407			0.593
Comprehensibility of the forms		0.773			0.675
Access to necessary forms	0.335	0.477			0.443
Option of e-government		0.732			0.609
Access to the right office	0.561		0.488		0.603
Spatial accessibility			0.724		0.593
Opening hours	0.306		0.677		0.573
Waiting times	0.392		0.678		0.623
Information on the further course of action	0.802				0.740
Helpfulness of staff	0.788				0.705
Expertise of staff	0.790				0.708
Overall duration of process	0.648				0.541
Trustworthiness of the authority	0.680				0.603
Non-discrimination				0.778	0.670
Incorruptibility				0.836	0.720
Comprehensibility of the law		0.641			0.445

Factor loadings below 0.3 are suppressed. N = 4656.

Satisfaction of businesses with government services in selected situations

Figure 11: Satisfaction of businesses with government services in selected situations



Source: Federal Statistical Office (2016b, p. 2).

Table 7: Descriptive overview of businesses' level of satisfaction

Variables		Satisfaction (–2 to +2)	No. of respondents	No. of agencies¹
No. of employees	0–9	+0.93	726	1594
	10–49	+0.93	462	1081
	50–249	+0.96	264	626
	250+	+0.96	94	221
Legal form	Individual enterprises, liberal professions	+0.93	502	1164
	Private companies	+0.88	160	298
	Capital companies, hybrid forms, other legal forms	+0.95	154	346
Industrial sector ²	Agriculture, forestry and fisheries	+0.72	38	85
	Production	+0.94	382	908
	Services	+0.93	1067	2392
Settlement structure ³	Urban centres	+0.90	463	1034
	Urbanised surrounding areas	+0.92	570	1304
	Rural surrounding areas	+0.92	262	581
	Rural areas	+0.95	251	603
Intended objective achieved	Yes or partly ⁴	+0.94	1108	1680
	No	+0.29	61	91

¹ Each firm can have contacted and rated multiple agencies.

² Definition of Eurostat (2008).

³ Definition of Bundesinstitut für Bau-, Stadt- und Raumforschung (2013).

⁴ Includes on-going procedures.

Table 8: Ordered logistic regression analysis for businesses' level of satisfaction

Independent variable	Odds ratios			OLS
	Model 1	Model 2	Model 3	Model 4
No. of employees	1.000	1.000	1.000	0.000
Dummy: individual enterprise, liberal profession	1.283*	1.301*	1.318**	0.129*
Dummy: service industry	0.890	0.906	0.923	-0.068
Dummy: agriculture, forestry, fisheries	0.324*	0.340*	0.481	-0.395
Dummy: urban or urbanised area	1.061	1.030	1.007	-0.005
Dummy: intended objective not achieved	–	0.181***	0.182***	-1.051***
Dummy: online communication with agency	–	1.004	0.997	0.005
No. of agencies contacted	–	0.912*	0.908	-0.033
Dummy: business start-up	–	–	0.965	-0.149
Dummy: finance and taxes	–	–	0.749	-0.242*
Dummy: appointment of employees	–	–	1.017	-0.040
Dummy: vocational and continuing training	–	–	1.537	0.147
Dummy: health and safety at work	–	–	1.929*	0.245
Dummy: construction of an establishment	–	–	0.207***	-1.022***
Dummy: participation in tendering process	–	–	1.117	0.039
Dummy: importing/exporting	–	–	1.483	0.150
Dummy: discontinuation or transfer of business	–	–	0.661	-0.294*
Nagelkerke's Pseudo R ² /Adjusted R ²	0.009	0.040	0.079	0.093
-2 Log Likelihood	3601.798	3553.027	3491.531	–
N (observations)	1718	1718	1718	1718

*** $p > 0.999$; ** $p > 0.99$; * $p > 0.95$

Discussion

- Paper shows the importance of looking at subjective experiences in dealing with bureaucracy
- Administrative burdens may be measured using SCM and reduced at aggregate level, but at the individual level the effect may not be noticeable.
- The regression results also show that the life events are strong drivers of satisfaction, indicating again that measuring the perception of bureaucracy is important.
- The customer journey maps and network analysis offer valuable insights into the importance of an agency in each life event and their interconnections with other agencies.

Comments

- Satisfaction is an ordinal variable so it might be insightful to see the distribution of satisfaction and not just an aggregated value.
- In the regression analysis the dependent variable is the “all-in-all” question about the general satisfaction with the authorities. Respondents rated their satisfaction with up to five agencies. Its not clear how an overall level of satisfaction is obtained.
- In the regression, the worst possible level of satisfaction “very dissatisfied” (−2) is used as reference. Not sure this is necessary.