The Instrument for Empirical Surveying of Subjectively Perceived Quality of Working Life

Jiří Vinopal
Public Opinion Research Centre
Institute of Sociology of Czech Academy of Sciences
18. 3. 2009

Working conditions and Health and Safety surveys in Europe: stocktaking, challenges and perspectives, 18. 3. 2009, Brussels
H&S and WC Surveys in Czech Republic

Czech Statistical Office
- Ad hoc modules in continual Labour Force Sample Survey:
  - Transition into Retirement (2006)

Research Institute for Labour and Social Affairs
- Measuring the Quality of Working Life (2004)
- European Working Conditions Survey (2005)
- The Quality of Working Life Measurement (2005-2008) (organizational level)

Occupational Safety Research Institute
- The Quality of Working Life (2005)
- The Quality of Working Life (2006)
- The Price of Health (2007)
- The Quality of Working Life of 50+ Workers (2009)
- Stress at Working Place (2009)

Institute of Sociology of Czech Academy of Sciences
- ISSP, Work Orientation II. (1997)
- Regular set of questions in the omnibus of CVVM (yearly)
- + cooperation on surveys with previously mentioned institutes

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The Project

Name: The Influence of Changes in Labour World onto the Quality of Life

Support: Czech Ministry of Labour and Social Affairs

Duration: 2005 - 2008

Research team:
- Occupational Safety Research Institute (Dr. Svobodová)
- Institute of Sociology of Czech Academy of Sciences (Dr. Mansfeldová, J. Vinopal)
- The University of Economics, Prague (prof. Dvořáková)

Surveys:
- The Quality of Working life 2005
- The Quality of Working life 2006
- The Price of Health 2007
- regular set of question in the omnibus of CVVM (annually)

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The Process

Partial task of the project: development of the instrument for measuring quality of working life in population surveys

The goal - the instrument, which:

1. Covers maximum of aspects of subjective quality of working life (SQWL)
2. Respects the relevance of each aspect for individual worker

Steps to be done (rather parallelly, then consequently...):

1. Conceptualize the topic
2. Conclude about measurement dimension of SQWL
3. Identify relevant aspects of SQWL
4. Reveal valid structure of the mental space of SQWL
5. Define optimal items for the final measurement instrument
6. Define measurement design for combining dimensions
1. Conceptualization of the topic
2. Conclusion about measurement dimension of SQWL
   -> satisfaction
   -> importance

3. Identification of relevant aspects of SQWL
   search for surveys and questionnaires (czech, worldwide, sociological, psychological, organisational, etc.)
   „brainstorming“ of the team
   -> 66 items in the 1st version of the questionnaire
Quality of Life

Quality of Working Life

Subjective

Satisfaction

Importance

Aspects of Working Life

Identification with the organisation
Economic char. of work
The work organisation aspects
Communication and feedback
Fairness of treatment
Technical aspects of the workplace

Objective

Social climate
Risks and safety in workplace
The type of work activities,
Self-realization, further education, personal development
Work ana family balancing etc.

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4. Revealation of valid structure of the mental space of SQWL

Three consequent surveys:
1. 2*66 items -> reduction (individual items analysis, exploratory factor analysis)
2. 2*18 items -> elaboration of the latent structure (individual items analysis, exploratory factor analysis, confirmatory factor analysis, reliability analysis)
3. 2*18 items -> validation of the latent structure and dimension combination

5. Definition of optimal items for the final measurement instrument
   -> validated in the 3rd survey

6. Definition of measurement design for combining dimensions
   -> bipolar 6-point scales of satisfaction and importance

Example: final factorial model

Example: final design of the questionnaire
Self-realization

Remuneration

Relationships

Time

Conditions

Security

SQWL

Salary

Remuneration fairness

Non-financial benefits

Self-activity

Education

Interestingness

With co-workers

With higher-ups

Bullying

Working time flexibility

Time demands

Harmonization

Equipment

Tidyness

Safety

Type of contract

Post stability

Chances of employment

Variance explained: 71.3%
RMSEA = 0.066
Crombach’s alpha = 0.88

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“Now I’m going to read to you a list of different aspects, which can play a role in case of job choice. Please tell me, how important each of them is for you personally.

<table>
<thead>
<tr>
<th>DEFINITELY IMPORTANT</th>
<th>IMPORTANT</th>
<th>RATHER IMPORTANT</th>
<th>RATHER UNIMPORTANT</th>
<th>UNIMPORTANT</th>
<th>DEFINITELY UNIMPORTANT</th>
<th>NA</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

a) How important is the amount of money you are paid,
b) that your performance is remunerated fairly?
c) How important are non-financial benefits [i.e. meal vouchers, extended vacation, company car, telephone etc.]?
d) How important are relationships with co/workers;
e) higher up’s manners;
f) that there is no violence and bully at the workplace?
g) How important is time demands of the job;
h) working time flexibility?
i) How important is, that job allows enough time for your family, hobbies and relaxation?
j) How important is that the work is interesting for you;
k) that you have opportunities of further education and personal development;
l) that you are allowed to perform independently?
m) How important is the type of work contract i.e. full time or part time job, defined or undefined time period etc.;
n) How important is the stability of the work post?
o) How important are a further chance and opportunities to assert yourself on the labour market?
p) How important is the degree of work safety and health protection at the workplace;
q) technical equipment of the workplace?
r) How important are is order, tidiness, and hygiene at the workplace?”
“Now we turn with the same aspects to your contemporary job. Please tell me how satisfied or dissatisfied are you with each of them in case of your major contemporary job/employment.

<table>
<thead>
<tr>
<th>VERY SATISFIED</th>
<th>SATISFIED</th>
<th>RATHER SATISFIED</th>
<th>RATHER DISSATISFIED</th>
<th>DISSATISFIED</th>
<th>VERY DISSATISFIED</th>
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a) How satisfied are you with the amount of money you are paid,
b) with the fairness of remuneration of your performance?
c) How satisfied are you with non-financial benefits [i.e. meal vouchers, extended vacation, company car, telephone etc.]?
d) How satisfied are you with relationships with co-workers;
e) with higher up’s manners;
f) with the degree of violence and bully at the workplace?
g) How satisfied are you with time demands of the job;
h) with the degree of working time flexibility?
i) How satisfied are you with the degree, to which your job allows you enough time for your family, hobbies and relaxation?
j) How satisfied are you with interestingness of the work;
k) with opportunities of further education and personal development;
l) with the degree of independence of work performance?
m) How satisfied are you with the type of work contract, i.e. full time or part time job, defined or undefined time period etc.;
n) How satisfied are you with the stability of the work post?
o) How satisfied are you with further chance and opportunities to assert yourself on the labour market?
p) How satisfied are you with the degree of work safety and health protection at the workplace;
q) with technical equipment of the workplace?
r) How satisfied are you with the order, tidiness, and hygiene at the workplace?”
## Analytical possibilities

<table>
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<th>Dimensions combined</th>
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<tr>
<td></td>
<td>Satisfaction</td>
<td>Importance</td>
</tr>
<tr>
<td>Items</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Factors</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Overall indicator</td>
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<td></td>
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</table>

Only “x” shown here.

*Working conditions and Health and Safety surveys in Europe: stocktaking, challenges and perspectives, 18. 3. 2009, Brussels*
## Analysis Level: items

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**Graph:**
- **Satisfaction** and **Importance**
- Y-axis: 3.0 to 6.0
- X-axis: Various factors like wage, stability, time flexibility, etc.

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**Self-employed (N=63)**

**Employees - non-manual (N=357)**

**Employees - manual (N=184)**

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Analysis Level: factors

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Self-employers (N = 63)

Employees - non-manual (N = 357)

Employees - manual (N = 184)

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<table>
<thead>
<tr>
<th>Employees - manual (N=184)</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>Remuneration</td>
<td>.019</td>
<td>.006</td>
<td>.318</td>
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<td>.001</td>
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<tr>
<td>Relationships</td>
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<td>.007</td>
<td>.281</td>
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<td>.005</td>
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<tr>
<td>Time</td>
<td>.006</td>
<td>.006</td>
<td>.084</td>
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<tr>
<td>Self-realization</td>
<td>.004</td>
<td>.008</td>
<td>.044</td>
<td>.462</td>
<td>.645</td>
</tr>
<tr>
<td>Security</td>
<td>.001</td>
<td>.006</td>
<td>.017</td>
<td>.193</td>
<td>.847</td>
</tr>
<tr>
<td>Conditions</td>
<td>-.009</td>
<td>.006</td>
<td>-.143</td>
<td>-1.505</td>
<td>.135</td>
</tr>
</tbody>
</table>

**Dependent variable:** considerations about change of a job  
(1 = yes, 2 = no)

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<tr>
<td>Remuneration</td>
<td>.017</td>
<td>.003</td>
<td>.300</td>
<td>4.927</td>
<td>.000</td>
</tr>
<tr>
<td>Relationships</td>
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<td>.004</td>
<td>.167</td>
<td>2.788</td>
<td>.006</td>
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<td>-.145</td>
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<td>1.844</td>
<td>.066</td>
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<td>-.003</td>
<td>.004</td>
<td>-.038</td>
<td>-.616</td>
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Analysis Level: overall indicator

Index computation

Initial tranformations
- importance transformed onto scale 1 [definitely unimportant] to 6 [definitely important]
- satisfaction transformed onto scale -3 [very dissatisfied] to +3 [= very satisfied]
- importance weights the value of satisfaction
- bipolarity of satisfaction brings minus points for dissatisfaction and plus points for satisfaction -> bipolarity of the index

Computation
- each item: \( xi = \text{satisfaction} \times \text{importance} \)
- raw score: \( RS = \text{sum of } xi \)
- net index: \( RS / \text{sum of valid items} \) [the item answered in both dimensions]

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Discussion

1. The extent of the questionnaire
   -> reduce it to 12 or 6 items

2. Association of dimensions
   -> not so serious but be careful

3. Applicability under different conditions
   -> be challenged...
Contact

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http://www.soc.cas.cz/people/cz/5/90/PhDr.-Jiri-Vinopal-Ph.D..html

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