



Workshop on Human Capital – Bordeaux 2016

**Human Capital Reporting:
Proposal of a Grid to Improve the
Theory and Practices of Human
Resources Valorization**

Elena M. BARBU, PhD – University of Grenoble-Alps, IAE&CERAG, France

Marie-Hélène BIHR, PhD – University of Grenoble-Alps, IAE&CERAG, France

Nicoleta M. IENCIU, PhD – Babeş-Bolyai University, Romania

Outline of the presentation

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Contexte

The International Labour Organization (ILO) / Organisation Internationale du Travail (OIT) presents in the *World Employment and Social Outlook (2016)*:

- Every **15 seconds**, a **worker dies** from a **work-related accident or disease**.
- Every **15 seconds**, **153 workers** have a **work-related accident**.
- Every day, **6 300 people die as a result of occupational** accidents or work-related diseases => more than 2.3 million deaths per year.
- **317 million accidents occur on the job** annually.
- The economic cost is estimated at 4% of global Gross Domestic Product each year.

⇒ **Research question:**

On what companies should communicate in order to improve the reporting and the valorisation of their human capital?

Objectives

- 1. To propose a grid of human capital valorisation.**
- 2. To empirically identify the extend and the best practices of human capital reporting in France and Canada.**
- 3. To empirically observe factors influencing these practices.**

Literature: Human capital definition

Hudson (1993):

Genetic inheritance, education, experience, attitude about life and business.

Chin and Sofian (2011):

Pure intelligence of the employee.

Lev and Schwartz (1997):

Income source incorporated in a person in a form of his/her raw force and natural or gained competences.

Edvisson and Sullivan (1996):

Knowledge, know-how, employee's experiences, attitudes, innovation and learning ability.

⇒ **Human capital** is represented by the **aggregate of native values and values gained by an employee**, including creativity, aptitudes, principles and moral values specific to each individual, as well as the knowledge and competences accumulated by the employee due to their education, experiences and attitudes.

Literature: Human capital reporting

Utility of the human capital reporting: for a better image of the firm

❖ Singh and Van der Zahn (2008):

A company is able to consolidate its market image, attract investors, reduce capital costs and improve its relationships with various stakeholders.

❖ Bozzolan *et al.* (2003); Li *et al.* (2008); Vafaei *et al.* (2011); White *et al.* (2007):

Companies are thus offering market signals regarding the superior quality of the human capital they possess.

Level of the human capital reporting: generally quantity but not quality / just global human resources valorisation (remuneration policies, security, hygiene, etc.)

❖ In annual reports (Brennan 2001; Guthrie and Petty 2000; Olsson 2001; Williams and Ho Wern Pei 1999) ;

❖ Presentations to stakeholders (Garcia-Meca *et al.* 2005).

=> A lack in the research literature:

These studies use different grids taking into consideration only a global human resources valorisation, and not **the valorisation of each person (native and gained values)**.

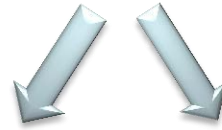
Human capital definition

Human capital



Literature on human capital reporting

Literature on human capital



Hygiene
Security
Labour conditions
Remuneration policies
 ...

Native values:
Creativity
Aptitudes
Principles and moral values

Gained values:
Knowledge and skills
Experience
Education
Attitude

***Global human resources valorisation
 to improve the image of the company***

***Valorisation of each person
 to improve the responsibility of the company***

Proposal of a grid of human capital information

Elements	Explanations	
Elements according to the Human Capital Prize (Trophée du Capital Humain)		
E1	Aspects related to hygiene, security and labour conditions	
E2	Remuneration policies (applied individually or collectively)	
E3	Adequate social dialogue, proximity management	
E4	Aspects related to personnel recruitment and integration, except for those benefiting from special treatment	
E5	Aspects related to the recruitment and integration of personnel benefiting from special treatment (underprivileged backgrounds, young people, disabled people, young people with no qualifications, young people coming from an ethnic minority, etc.)	
E6	Equal opportunity treatment, fighting against discrimination	
E7	Aspects related to diversity (expressed by the multitude of origins, cultures and nationalities)	
E8	Measurement and valorisation of human resource performance	
Elements according to our taxonomy of human capital information		
E9	Creativity	
E10	Aptitudes	
E11	Principles and moral values	Native and
E12	Knowledge and skills	
E13	Experience	gained values
E14	Education	
E15	Attitude	

Human capital native and gained values

Element		Description
Creativity	E9	The human capital capacity to innovate, create new products , leading to value creation in the company, perennial business, competitive advantages and legitimacy in the capital market.
Aptitude	E10	Human capital feature to perform properly a work or an action , being synonymous with terms such as capacity, skill, talent, vocation or inclination for a particular activity.
Principles and moral values	E11	Employees' beliefs on which they create an ethical foundation to ensure their success on the professional level.
Knowledge and skills	E12	All concepts, ideas, information owned by an employee in a particular area , and the skill is the ability of an employee to act skillfully in various situations. Through these elements a company highlights the human capital quality in order to obtain economic benefits.
Experience	E13	All knowledge that individuals acquire about surrounding reality in the social-historical practice , and the material interaction between the individual and the outside world.
Education	E14	A set of measures applied systematically to the formation and development of the intellectual, moral or physical employee's capacities .
Attitude	E15	The employees' attitude is the most delicate part of human capital, including motivation, satisfaction and their loyalty to the workplace .

Methodology for the Empirical Analysis

Data: human capital disclosures contained in the **2010 annual reports and other sources of information** (like sustainable development reports, social responsibility reports, human resources reports, brochures regarding prizes granted for human capital (Trophy of Human Capital), activity reports, and information presented on company websites, etc.).

Sample:

- 60 companies listed on the Toronto Stock Exchange, S&P/TSX 60 Index, considered as the most representative **Canadian companies**;
- 62 companies listed on Euronext 100, Paris, considered as the most representative **French companies**.

Why France and Canada?

- Strong culture and a very favorable legislative environment for human capital;
- Only a few studies in the literature focus on Canada and France and on all sources of information.

Literature on human capital reporting

Author(s)	Region	Period	Sample	Context	Document
Abeyssekera and Guthrie, 2004	Sri Lanka	1998-2000	30	Top 30 listed companies	Annual reports
Abeyssekera, 2008	Sri Lanka	1993-1997	58	Fortune 500	Annual report
Ax and Marton, 2008	Sweden	2005	16	Most traded companies	Annual reports
Ayadi, 2006	France	2000-2001	82	Industrial and commercial sector	Corporate social responsibility (CSR) reports
Bessieux-Ollier et al., 2006	France	2004	40	CAC 40	Annual report and CSR report
Dominguez, 2012	Spain	2004	105	Spanish listed companies	Annual reports
Dumay and Lu, 2010	Australia	1992-2009	1	Financial services	CSR reports, newsletters, annual reports, media reports
Gamerschlag, 2013	Germany	2005-2008	130	Largest listed German companies	Annual reports
Hamzah et al., 2013	Malaysia	2009	100	Malaysian listed companies	Annual reports
Huang et al., 2013	Malaysia	2004-2005	100	Listed companies	Annual reports
Kateb, 2012	France	2006	55	Industrial, commerce and services	Annual reports
Khan and Khan, 2010	Bangladesh	2009-2010	32	Manufacturing and services	Annual reports
Lin et al., 2012	Taiwan	2006	660	Listed companies in Taiwan	Annual reports
Murthy and Abeyssekera, 2007	India	2003-2004	14	Software	Annual reports
Olsson, 2001	Sweden	1990, 1994, 1998	18	Companies on A-list	Annual reports
Rimmel et al., 2012	Denmark	2000-2003	5	Consulting engineers, management training course provider, public sector	IC statement
Serge, 2012	France	2000-2009 2006-2010	217 84	SBF250 SBF120	Annual reports
Subbarao and Zeghal, 1997	USA, UK Canada...	1993-1994	120	Manufacturing and financial services	Annual reports
Trebucq, 2006	France	2003-2004	120	SBF120	Websites, annual reports and different publications
Uliana et al., 2005	USA	2002	60	Pharmaceutical, Natural resources, telecommunication and technology	Annual reports

Human Capital Disclosure index 1/2

The Description of the Dependent Variable => Disclosure index

$$HC DI = \frac{\sum_{i=1}^p d_i^{TDHC(AR)} + \sum_{i=1}^q d_i^{TAX(AR)} + \sum_{i=1}^p d_i^{TDHC(OS)} + \sum_{i=1}^q d_i^{TAX(OS)}}{p + q}$$

Where:

p = 8 elements (E1 to E8 from the grid)

q = 7 elements (E9 to E15 from the grid)

TDHC = elements established according to the Human Capital Prize (1st criterion)

TAX = elements established according to the taxonomy we proposed for human capital (2nd criterion)

AR = annual report

OS = other informative sources than the annual report

The Description of the Independent Variables

- ❑ **Structure variables:** *firm size* expressed by the total assets, turnover, average number of employees and market capitalization;
- ❑ **Variables related to the company's performance:** *the company's profitability expressed by the recorded profit or loss.*
- ❑ **Market variables:** *the industry* classified in traditional or non-traditional industries using the Standard Industrial Classification method (Vafaei et al., 2011); *foreign activity* measured by exports/sales ratio.

Findings: *Best practices of human capital reporting*

	Companies / Industry		HC DI		E1		E2		E3		E4		E5		E6		E7		E8		E9		E10		E11		E12		E13		E14		E15	
	France (FR)	Canada (CA)	FR	CA	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C		
1	Bouygues / Conglomerate	Encana Corporation / Oil and gas	1,00	0,93	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	Cap Gemini / It services	Toronto-Dominion Bank / Financial services	1,00	0,93	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
3	Danone / Food processing	Bank of Montreal / Financial services	1,00	0,87	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	
4	Michelin / Auto and Truck parts	Bank of Nova Scotia / Financial services	1,00	0,87	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1		

French companies publish more information on human capital (E1-E9 and E11-E15) compared with Canadian companies which publish information more than French companies only on E10 (aptitudes)

Findings: *Descriptive statistics*

- ❖ **Human capital information:** French companies (80%), Canadian companies (63%).

- ❖ **French companies** lend particular importance to elements related to:
 - ❖ Adequate social dialogue;
 - ❖ Recruitment and integration of personnel;
 - ❖ Equal opportunity treatment;
 - ❖ Employee's creativity.

- ❖ **Canadian companies** supplied more information about:
 - ❖ Employee's aptitude.

Findings: Influencing factors of human capital reporting

Correlation matrix for French & Canadian firms

Variables	HCDI	TA	TR	NE	MC	PY	IND	EXP
HCDI	-	.30**	.36***	.48***	.29**	-.08	-.18	-.04
TA	.27**	-	.88***	.30**	.23	.11	.17	.04
TR	.27**	.68***	-	.44***	.19	.13	.02	.13
NE	.49***	.30**	.43***	-	.50***	.08	-.21	.24
MC	.16	.14	.24*	.31**	-	.19	-.04	.18
PY	.03	.07	.33**	-.04	-.09	-	.12	-.15
IND	.05	.19	.04	-.24*	.05	.12	-	-.19
EXP	.22*	-.01	.13	.02	-.19	.05	-.09	-

Note: This table provides Pearson correlations of variables in the regression models where: HCDI – human capital disclosure index; Ta – total assets; TR - total turnover; NE - number of permanent employees; MC - market capitalization; EXP - percentage of exports recorded; IND - traditional or non-traditional industry of the company. The samples size refers to the number of Canadian companies included in the analysis ($N = 60$, below the main diagonal) and French companies included in the analysis ($N = 62$, above the main diagonal). *, **, *** indicate that the Pearson correlation coefficient differs from zero at the 10%, 5%, and 1% level respectively (using a two-sided test).



Findings: *Multiple linear regression analysis*

French companies

Problem of multicollinearity > 0,8: TA and TR; => exclusion of TA

$$\text{HCDI} = \lambda_j + \beta_1 \ln \text{TR}_j + \beta_2 \ln \text{NE}_j + \beta_3 \ln \text{MC}_j + \beta_4 \text{PY}_j + \beta_5 \text{IND}_j + \beta_6 \% \text{EXP}_j + u_j$$

Canadian companies

$$\text{HCDI} = \lambda_j + \beta_1 \ln \text{TA}_j + \beta_2 \ln \text{TR}_j + \beta_3 \text{NE}_j + \beta_4 \ln \text{MC}_j + \beta_5 \text{PY}_j + \beta_6 \text{IND}_j + \beta_7 \% \text{EXP}_j + u_j$$

Findings: *Regression analysis results*

Regression analysis results for French companies

Variables	<i>p</i> -value	<i>t</i> -test	VIF
TR	0.144	1.480	1.238
NE	0.000***	4.231	1.000
MC	0.606	0.519	1.339
PY	0.302	-1.042	1.007
IND	0.678	-0.417	1.046
EXP	0.156	-1.439	1.060

Regression analysis results for Canadian companies

Variables	<i>p</i> -value	<i>t</i> -test	VIF
TA	0.267	1.122	1.100
TR	0.600	0.527	1.231
NE	0.000***	4.231	1.000
MC	0.973	0.034	1.107
PY	0.656	0.448	1.002
IND	0.130	1.538	1.062
EXP	0.071*	1.839	1.000

Concluding remarks for the statistical analysis

❖ Descriptive statistics

❖ **French companies** lend particular importance to elements related to:

- ❖ Adequate social dialogue;
- ❖ Recruitment and integration of personnel;
- ❖ Equal opportunity treatment;
- ❖ Employee's creativity.

❖ **Canadian companies** supplied more information about:

- ❖ Employee's aptitude.

❖ Correlation matrix:

- ❖ **French companies:** Firm size (total assets, turnover, number of employees and market capitalization);
- ❖ **Canadian companies:** Firm size (total assets, turnover, number of employees), Foreign activity.

❖ Multiple linear regression analysis

- ❖ **French companies:** Number of employees (size);
- ❖ **Canadian companies:** Number of employees (size) and Foreign activity.

Concluding remarks for the article

❖ Contributions

❖ Theoretical contribution:

- ❖ Proposal of a framework for human capital reporting.

❖ Empirical contributions:

- ❖ Two countries;
- ❖ Quasi-exhaustivity of the **sources of information**.

❖ Managerial contributions:

- ❖ To help **companies** to identify best practices and to improve their human capital disclosure;
- ❖ To help corporate reporting **regulators** better identify elements of voluntary human capital disclosure within a company and factors influencing them, resulting ultimately in the formulation of improved future corporate reporting recommendations.

❖ Limits:

- ❖ Researchers' subjectivity for the creation of the grid;
- ❖ A cross-sectional study for one year;
- ❖ Take into consideration other countries.



Institut d'Administration des Entreprises de Grenoble

Thank you!

Elena M. BARBU, PhD – University of Grenoble-Alps, IAE&CERAG, France

Marie-Hélène BIHR, PhD – University of Grenoble-Alps, IAE&CERAG, France

Nicoleta M. IENCIU, PhD – Babeş-Bolyai University, Romania