Digital Accounting Research, XBRL, and the Challenge of Non-Financial Information (Intangibles)

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GENERAL “WARNING”

An (external) (and to some extent visionary) accounting perspective will be privileged
Agenda

A) New applications/issues/techniques of digital accounting referring to the “traditional” fields (financially related)

B) New objects

C) Final considerations
A) New Applications in “Traditional” Fields

XBRL and its business development:

- Will the availability of XBRL tagged information facilitate the preparation of customized reports?
- Will the cost of content development decrease?
- Will the costs of data distribution decrease?
- Is there going to be a shift of the costs of data manipulation to application software developers?
- By the nature of its “self-explanation” (with tags), will data be really more accessible and available?
- Substantial reductions in data tailoring costs?
- Reductions or increases of revenues in the industry?
- Reductions in software tailoring costs and revenues in the software integration industry (e.g. EDS, IBM, Accenture)?
- More emphasis on analytics?
New Applications in “Traditional” Fields (2)

XBRL, financial analysis, and financial risk management:

Where and how XBRL impacts equity (financial) analysts. In particular, how to automate the process heuristics – gaining time but without losing intelligence

How can XBRL impact investment risk management
New Applications in “Traditional” Fields (3)

The IAS revolution:

How digitalised information can impact on the application of the new standards system?

How can nationally biased application of IAS/IFRS be detected (e.g. relevant for audit)?

Application of XBRL to the notes and non-financial information (e.g. management discussion and analysis) of IAS/IFRS-based annual reports
New Applications in “Traditional” Fields (4)

The implementation of the Basel II treaty:

How digitalised information can impact on the concrete adoption of the new credit merit standards)?

XBRL and Basel II will probably go hand in hand (cf. Corep’s decisions)
New Applications in “Traditional” Fields (5)

Forensic Accounting:

How digital accounting research can help in detecting frauds

Insolvency analysis and continous auditing are approaches that can be further developed in this direction
New Applications in “Traditional” Fields (6)

Creation/Development/Refinement of financial information taxonomies:

- For Internal Purposes → Continuous Audit and Monitoring
- For External Purposes → Comparability and Easier Usage of Information
B) New Objects

Transformations, shape and contents of company financial statements and annual reports (e.g. Enhanced Business Reporting Initiative → cf. XBRL Conference in Philadelphia)

Non-financial Information → in particular, Intangibles and Intellectual Capital → measurement, analysis, audit

Non-financial Risk Management

Education → methods and impact thereon (e.g. university curricula → cf. XBRL Conference in Philadelphia)
The Role of Non-Financial Info.

Steep increase in the importance of non-financial and non-GAAP information (esp. in Europe & Japan)

New forms of reporting such as:
- social / CSR reports
- sustainability reports (GRI)
- environmental reports
- corporate governance reports
- intangibles / intellectual capital reports

Non-financial risk management and disclosure (e.g., reputational risk)
International Approaches

Internationally, various proposals on new business reporting and management models have already been put forward:

- US → Enhanced Business Reporting (EBR)
- Europe → Intellectual Capital/Intangibles Reporting
- Japan → Intellectual Assets-based Management

Necessity for a globally agreed framework, where XBRL can provide an important input for convergence
Intangibles and Value Creation

A basic fact is that intangibles are the long-term drivers of value creation for companies.

Issue for many stakeholders (e.g. investors, managers) → to have the right information for understanding, decision-making and predicting company value creation → need for having information on intangibles/intellectual capital.
The Concept of Intellectual Capital

Intellectual Capital – IC – is the internal (competencies, skills, capabilities, leadership, etc.) and external (imagine, brands, customer satisfaction, etc.) stock of intangibles of an organisation, which allows the latter to transform a bundle of material, financial, and human resources in a system capable of creating stakeholder value through the pursuit of sustainable competitive advantages (Zambon, 2000)

Organisational knowledge becomes IC only when it is durably and effectively internalised or appropriated by an organisation
Towards a New Reporting Tool

Intellectual Capital (IC) Statements or Report on Intangibles

Based on indicators → many without a financial nature

The partitioning of IC into three interrelated sections is quite widely accepted: Human Capital, Organizational Capital (including Innovation and Information Capital), and Relational Capital visualised/measured through indicators and parameters
## Intangible Assets Monitor, Sveiby 1997

### Intangible Assets

<table>
<thead>
<tr>
<th>External Structure</th>
<th>Internal Structure</th>
<th>Personnel Competence</th>
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<tbody>
<tr>
<td>Growth/Renewal</td>
<td>Growth/Renewal</td>
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<td></td>
<td>- Growth of personnel</td>
<td>- Competence-enhancing</td>
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<td></td>
<td>- Growth of market share</td>
<td>customers</td>
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<td>- Customer satisfaction</td>
<td>- Growth of average</td>
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<td></td>
<td>or quality</td>
<td>professional competence</td>
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<td>(years)</td>
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<td></td>
<td></td>
<td>- Turnover of competence</td>
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<tr>
<td>Efficiency</td>
<td>Efficiency</td>
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<tr>
<td>- Revenues per customer</td>
<td>- % of administrative</td>
<td>- Value added per</td>
</tr>
<tr>
<td>- Sales per agent</td>
<td>staff</td>
<td>employee</td>
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<tr>
<td>Stability</td>
<td>Stability</td>
<td>- Changes in the</td>
</tr>
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<td>- Repeat orders</td>
<td>- Age of organisation</td>
<td>proportion of highest</td>
</tr>
<tr>
<td>- Age of structure</td>
<td>- Rookie ratio</td>
<td>competence employees</td>
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Monitor, Sveiby 1997
# Disc. and learning

1. **Internal renewal**
   - Research and development
   - Work force training and development
   - Organizational capital, Processes

2. **Acquired capabilities**
   - Technology purchase
   - Spillover utilization
   - Capital expenditure

3. **Networking**
   - R & D alliances and joint Ventures
   - Supplier and customer Integration
   - Communities of practice

# Implementation

4. **Intellectual property**
   - Patents, trademarks and copyrights
   - Licensing agreements
   - Coded know-how

5. **Technological feasibility**
   - Clinical tests, Food and Drug Administration approvals
   - Beta tests, working pilots
   - First mover

6. **Internet**
   - Threshold traffic
   - Online purchases and sales
   - Major internet

# Commercialisation

7. **Customers**
   - Marketing alliances
   - Brand values
   - Customer churn

8. **Performance**
   - Revenues, earnings, and market share
   - Innovation revenues
   - Patent and know-how royalties
   - Knowledge earnings and capital

9. **Growth prospects**
   - Product pipeline and launch dates
   - Expected efficiencies and savings
   - Planned initiatives
   - Expected breakeven and
INTANGIBLES AND INFO. USERS: THE CASE OF FINANCIAL ANALYSTS

In 2001 the Italian Association of Financial Analysts (AIAF) set up a study group on Intangibles (“Mission Intangibles”)

In January 2002 a model has been developed – in collaboration with the University of Ferrara – to measure the level of disclosure on intangibles by companies in their external reports.

This model has now been refined/extended in order to represent/rank companies on the basis of their level of disclosure/communication on intangibles.
A Basic Framework for Ranking the Level of Disclosure on Intangibles (AIAF-Unife, 2002)

LEVELS OF COMMUNICATION ON INTANGIBLES

Level 3
Extended information

Level 2
“Reasoned” information

Level 1
“Minimum” information

FIVE DIMENSIONS OF COMMUNICATION

Organisation
Innovation & IPR
Human resources
Customers & Market
Strategy

NATURE OF INFORMATION

Actual
Forecast
The Harmonisation Role of XBRL

In the US the SEC thrust towards a general XBRL Taxonomy includes the search for establishing also a global taxonomy for non-financial and non-GAAP information.

The Enhanced Business Reporting Consortium (EBRC) is working in this direction by collaborating with the Japanese Ministry of Economy, Trade and Industry (METI).

European Commission is also getting there.
The Harmonisation Role of XBRL (2)

The aim is to work towards a new and generally accepted framework for reporting non-financial information worldwide.

World Intellectual Capital Initiative (WICI)

- Prof. Yasuhito Hanado, Waseda University and METI
- Prof. Stefano Zambon, University of Ferrara & European Commission
- Enhanced Business Reporting Consortium (EBRC)
- Committee on Intellectual Capital of the European Financial Analysts OECD

Common Information Set on Intangibles / Intellectual Capital

Investors/Auditors/Financial Analysts

Collectivity

SOCIALLY/SUSTAINABLE REPORTING

Society

ENVIRONMENTAL REPORTING

TRADITIONAL FINANCIAL REPORTING
C) Final Considerations

Perhaps “To Infinity and Beyond” (from the movie “Toy Story”) might be a slight exaggeration, and...

Perhaps the Metcalfe’s law does not apply so strictly thereto,

but

Digital Accounting Research appears to have quite large and long avenues to walk along
THANK YOU!

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