Academic Research   Track:04

Best structure of taxonomies for the different purposes of analysis

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Contents for today's session

- Discussion on taxonomy design
- Difficulties for discuss best taxonomy
- Taxonomy design of next generation EDINET
- Each investor / Analyst has different usage of data
- Real case, Different requirement to use SGA Expense data
- How we can get necessary information from XBRL?
- Conclusion

About Nomura Research Institute ;

A research institute, which is a member of the group companies in financial sectors. Nomura securities used to be a parent company before we went to public on Tokyo Stock Exchange. Our department provides information and solution for mainly asset management companies, trust banks, and advisory service companies, etc.
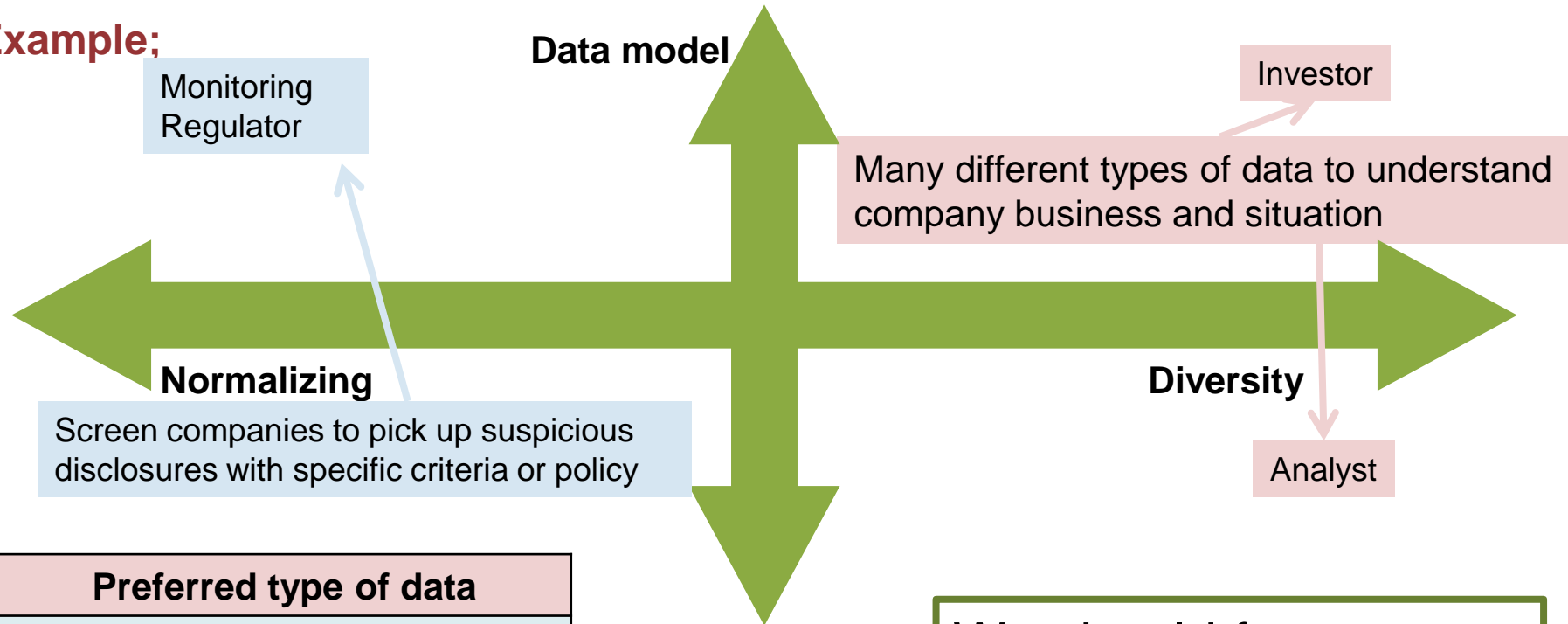
1. Discussion on taxonomy design

- Discussion on taxonomy design is getting more active these days.

- Type of issues; usability for handling data, connectivity with other applications, etc.

- Required knowledge; business rule, operations, analysis, interface with transfer information, etc.

2. Difficulties for discuss best taxonomy

Because there are many types of users.

There is no one taxonomy which is able to transmit all required information .
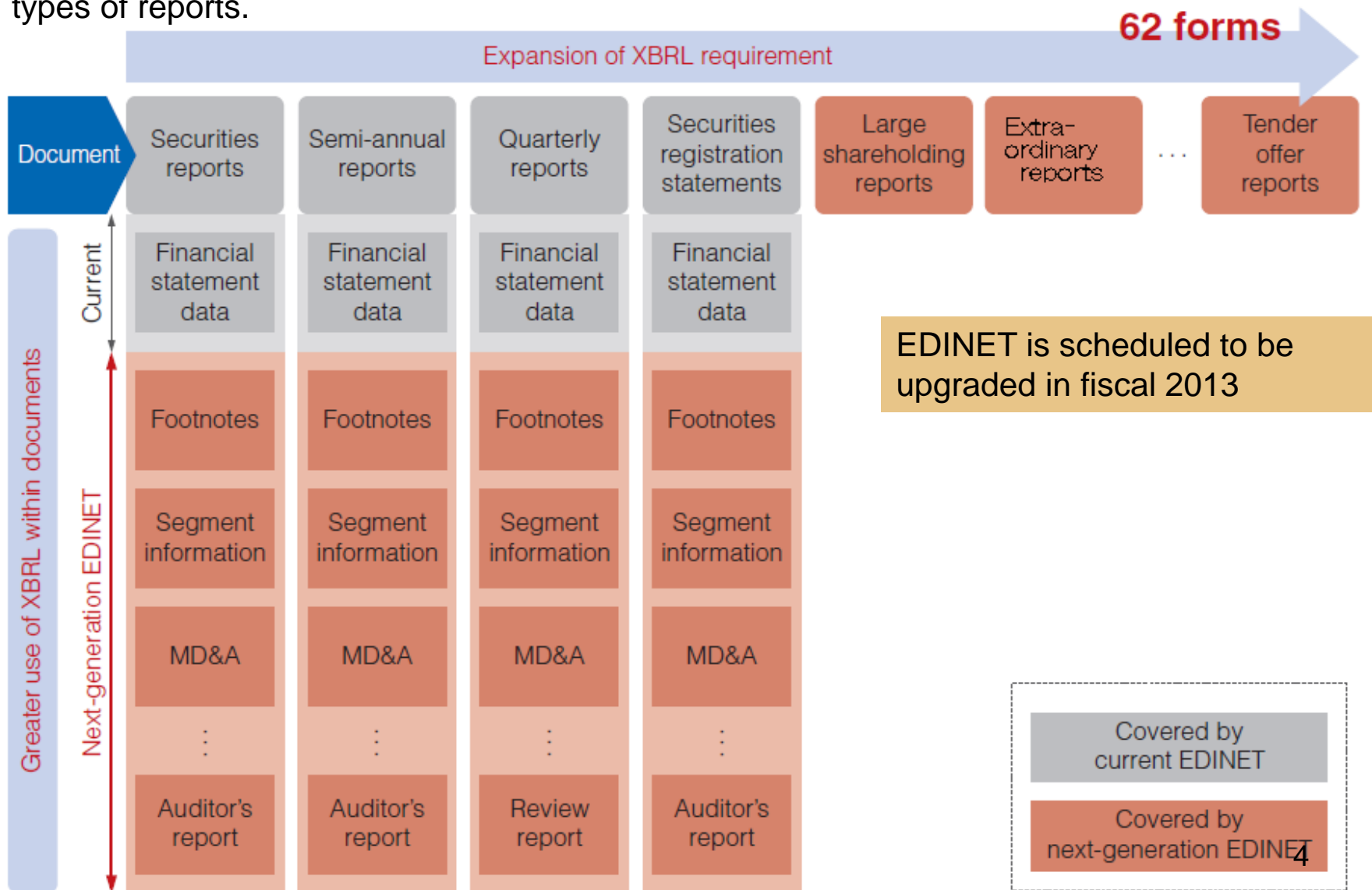
Example;

Data model

Monitoring Regulator

Investor

Many different types of data to understand company business and situation

Normalizing

Screen companies to pick up suspicious disclosures with specific criteria or policy

Diversity

Analyst

Preferred type of data
Same formatted data Data for only regulator investigation
Extension of each companies is an important information

Presentation of the report

We should focus on investors' usage that will benefit issuers.

XBRL®
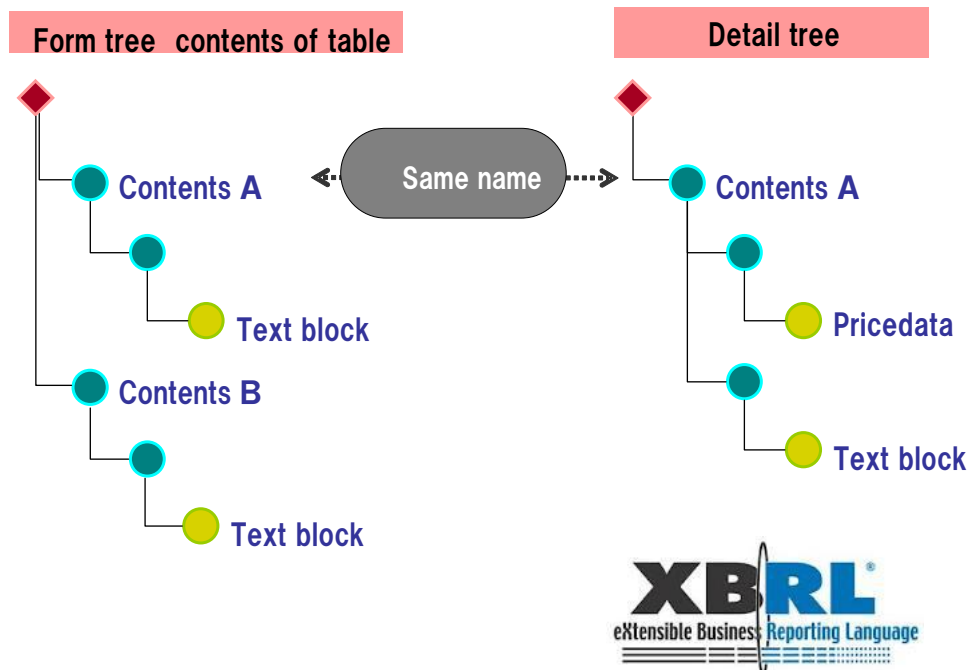eXtensible Business Reporting Language

3

3. What to expect from next generation EDINET

Expand XBRL coverage to non-financial information in the securities reports or any other types of reports.

Expansion of XBRL requirement → **62 forms**

Document	Securities reports	Semi-annual reports	Quarterly reports	Securities registration statements	Large shareholding reports	Extra-ordinary reports	...	Tender offer reports
Current	Financial statement data	Financial statement data	Financial statement data	Financial statement data				
	Footnotes	Footnotes	Footnotes	Footnotes				
	Segment information	Segment information	Segment information	Segment information				
	MD&A	MD&A	MD&A	MD&A				
	⋮	⋮	⋮	⋮				
	Auditor's report	Auditor's report	Review report	Auditor's report				

Greater use of XBRL within documents

Next-generation EDINET

EDINET is scheduled to be upgraded in fiscal 2013

Covered by current EDINET

Covered by next-generation EDINET

4

4. Taxonomy design of next generation EDINET

- Next generation EDINET introduces
  - Dimension
  - Inline XBRL
  - Textblock tag

- New taxonomy structure for the whole report
  - Form tree => For table of contents of the reports, elements for title of each section are set on the presentation link
  - N/A tag => When company doesn't have any facts to disclose on particular section, it can set this tag there

Form tree contents of table		Detail tree

Contents **A** ← Same name ⤳ Contents **A**

Text block

Contents **B**

Text block

Pricedata

Text block

5. Each investor / Analyst has different usage of data

	Type of data usage	Requirement
(1)	Making their own estimation of company performance to have their own scenario	Taxonomy structure should provide nature of concept or ideal data structure
(2)	Making sure whether there are any suspicious disclosures or not	Would like to use taxonomy for checking data consistency => designed to emphasize the relation between each line-item and total item
(3)	Would like to collect information that it is difficult to find normally. Would like to find where to invest by different angle using original disclosure information.	=> Users need as many tags as possible so that each analyst can create his/her own model to find out issues such as differentiator from his/her peers or good points, etc. Most important thing is that data is original

6. Type1 – Nature of concept or ideal structure

For users who make their own estimation of company performance to come up with their own scenario, taxonomy should support them to re-calculate data using original elements.

I want to know the 'link' between elements of each figure of depreciation and applied method, other conditions by footnote

Inter-segment elimination is not disclosed enough. I have to know the detail data against each segment. => It means, I need multiple values by members on the same axis.

	Gross Sales(?) including external customers	Intersegment elimination against segment2	Intersegment elimination against segment3	Intersegment elimination against segment4	Intersegment elimination against segment5	Net Sales
Segment1						
Segment2						
Segment3						
Segment4						
Segment5						

6. Type 2 – Relation each element with primary FS

For users who want to take data automatically to remove any arbitrariness, for comparing companies.

• Need sum-element on the primary FS as a standard taxonomy (as well known item) for all extension elements as parent so that user is able to find their meaning automatically

• For handling data automatically
  o Need to know what is disclosed or not, using tags, such as Nil (in case of number) or "N/A" tag (for narrative information)
  o Need to recognize the improbable combination members of dimension and control them

6. Type 3 – Many elements as many as possible

For users who handle data such as "BIG DATA ANALYSYS" to search without any premises to find out singular point

For finding out the hidden relation between data, which seems to be unrelated actually, might not require any link-information between each element on the taxonomy?

In fact, we need several types of taxonomy for the same data Depends on purpose of analysis?

Now we should focus on type 1 and 2.

7. We should focus on type 1 and 2.
Discussion expected on usage of SGA expense and taxonomy

On the financial report, SGA expenses are written on primary financial statements and footnote (disclosure) separately

	How to use data and issues (When data is scattered with the extension elements)	Possible solutions
A	Have to collect all elements that belong to SGA expense =>Sample shown on the next slide	For example, set member of dimension "SGA expense" as global dimension or definition link sets all elements as child under total SGA expense, even if some elements appear on the footnote
B	Want to check total number and specific figures for calculation of specific financial indicators (want to separate causality of those expenses)	Want to use calculation-link between those items, however, if footnote disclosure can omit to disclose everything (only to write important elements), calculation-link doesn't work
C	Want to know which items are in Primary financial statement and which items are on the footnote (less important items are written on the footnote)	Describe all required disclosure forms using presentation-link. => Sample of the Next Generation EDINET "form tree" in the after next slide.

Let's see how we can find solution? => Go to Slide 16

Sample data of SGA expense

(2) 連結損益及び包括利益計算書　　Statement of Income

（単位：百万円）

	前連結会計年度 （自　平成22年4月1日 至　平成23年3月31日）	当連結会計年度 （自　平成23年4月1日 至　平成24年3月31日）
売上高	326,328	335,554
売上原価	233,119	235,515
売上総利益	93,209	100,038
販売費及び一般管理費	※1, ※2　54,782	※1, ※2　56,886
営業利益	38,426	43,152

Selling, general and administrative expenses

Footnote for Statement of Income

（連結損益及び包括利益計算書関係）

※1　販売費及び一般管理費のうち主要な費目及び金額は、次のとおりです。

（単位：百万円）

	前連結会計年度 （自　平成22年4月 1日 至　平成23年3月31日）	当連結会計年度 （自　平成23年4月 1日 至　平成24年3月31日）	
貸倒引当金繰入額	－	23	Directors' compensations
役員報酬	1,093	899	Salaries and allowances
給料及び手当	19,167	20,065	Provision for bonuses
賞与引当金繰入額	4,283	4,527	Retirement benefit expenses
退職給付費用	2,260	2,347	Welfare expenses
福利厚生費	3,641	3,651	Education and training expenses
教育研修費	1,451	1,567	Rent expenses on real estates
不動産賃借料	5,125	4,715	Operations consignment expenses
事務委託費	6,831	8,401	Depreciation
減価償却費	1,818	1,409	

（注）当連結会計年度の期首以後に行われる会計上の変更及び過去の誤謬の訂正について、「会計上の変更及び誤謬の訂正に関する会計基準」（企業会計基準第24号 平成21年12月4日）及び「会計上の変更及び誤謬の訂正に関する会計基準の適用指針」（企業会計基準適用指針第24号 平成21年12月4日）を適用しており、貸倒引当金戻入額を販売費及び一般管理費の「貸倒引当金繰入額」の戻入として処理しています。前連結会計年度は特別利益の「貸倒引当金戻入額」に14百万円計上しており、遡及処理は行っていません。

XBRL
eXtensible Business Reporting Language

Sample of "Form Tree" of next generation EDINET

Statement of income [abstract]
Statement of income [table]
Statement of income [line items]
Revenue from operating activities [abstract]
Net sales [abstract]
Net sales

Selling, general and administrative expenses [abstract]
Sales commission-SGA
Packing expenses-SGA
Haulage expenses-SGA
Advertising expenses-SGA
Sample expenses-SGA
Warehousing expenses-SGA

Footnote of consolidated statement of income（jpcrp_001500-000_2013-03-31_pre.xml）

Major components of selling, general and administrative expenses [text block]
Depreciation-SGA
Provision of allowance for doubtful accounts-SGA
Research and development expenses included in general and administrative expenses and manufacturing cost for current period [text block]
Research and development expenses included in general and administrative expenses and manufacturing cost for current period
Research and development expenses-SGA

12

8. How we can get necessary information from XBRL?

Reviewing basic function of taxonomy

- Basic taxonomy has three links, at least..
    - Presentation, Definition, Calculation

- Simply user expects each role of link….
    - **Presentation** can explain elements in Primary financial statement or footnote
    - **Definition** might be able to categorize elements as their nature, even if those elements are somewhere in the reports
    - **Calculation** can provide which elements figures are included for total items

→ Definition link can present data relation and meaning of each data using dimension members. Presentation link can present elements as disclosed under regulation and corporate policy

If we have at least two different roles of links, it might meet the purpose A and C. Then part of B can be supported by calculation link (because calculation can not be provided between members of dimensions)

9. Conclusion

- Though XBRL has been developed for issuers or regulators, it is a great attempt to accelerate discussion among investors. However, there are no taxonomy structures to be able to solve everything

- Taxonomy should be designed by each usage purpose . But we can prioritize for disclosure purpose

- For disclosure purpose, for example, taxonomy structure has to help improve validation level and support handle data correctly by user

- If the purpose is different, sometimes we might have several different layers on the taxonomy for one data

Any Questions? Thank you!

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