Service innovation: Do we know it when we see it?

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Why is innovation so interesting?

- Because of the economic impact
  - if there isn't an economic impact, it isn't an innovation (but it may still be something new..)
  - New combinations that are economically more viable than the old way of doing things (Schumpeter, TED)
  - Economic impact is created through diffusion: (product) innovation requires the possibility of application in relation to several customers

A general definition of innovation

- Innovation is value generating ideas, which can be:
  - related to new products, new services, new production processes, new form of delivery, new market channels etc.
  - related to the development of new knowledge, or the use of “old” knowledge in a new way
  - imitated and diffused.
- Do we need a specific definition of service innovation?

"Who’s eating who?"

- The assimilation approach of the 1990’s: applying a "manufacturing logic" to all types of innovation
- An all-embracing approach of the 2000’s: applying a "service logic" to all types of innovation
    - taking the synthesis approach to the extreme because we cannot make a clear distinction between manufacturing and service innovation after all????

Percentage of turnover generated from services in knowledge intensive service firms (2005 data for DK)

	1-25%	26-50%	51-75%	76-100%	Do not know	N
Finance and insurance	7%	5%	0%	81%	7%	112
It-services	12%	18%	17%	50%	3%	179
Other business services	10%	7%	3%	78%	2%	441
10-19 empl.	8%	11%	7%	73%	2%	323
20-49 empl.	13%	10%	6%	67%	5%	236
50-99 empl.	13%	3%	7%	72%	5%	61
100-199 empl.	7%	10%	5%	76%	2%	42
200+ empl.	14%	7%	0%	75%	5%	44
Total	10%	9%	6%	71%	3%	732

Percentage of manufacturing firms that have assigned NACE codes from both manufacturing and services (2004 data, DK)

		N
Food, beverages and tobacco	39%	114
Textiles	39%	54
Wood products	43%	68
Paper and printing	26%	153
Chemical industry	36%	39
Rubber and plastic products	30%	69
Other non-metallic mineral prods.	35%	43
Metal industry	24%	270
Machinery and equipment	37%	217
Electronic components	42%	176
Transport equipment	44%	25
Furniture and manufacturing n.e.c.	43%	90
Total	34%	1318

Percentage of manufacturing firms that have assigned NACE codes from both manufacturing and services (2004 data, DK)

		N
10-19 empl.	30%	437
20-49 empl.	31%	457
50-99 empl.	39%	194
100-199 empl.	34%	117
200+ empl.	55%	103
Total	34%	1318

Product-innovative manufacturing firms that, in a 2-year period, have developed one or more services to be delivered as part of a product package (2004 data, DK)

		N
Food, beverages and tobacco	13%	62
Textiles	24%	21
Wood products	18%	22
Paper and printing	32%	44
Chemical industry	32%	28
Rubber and plastic products	23%	30
Other non-metallic mineral prods.	6%	16
Metal industry	14%	76
Machinery and equipment	33%	117
Electronic components	33%	107
Transport equipment	33%	9
Furniture and manufacturing n.e.c.	29%	38
Total	26%	570

Product-innovative manufacturing firms that, in a 2-year period, have developed one or more services to be delivered as part of a product package (2004 data, DK)

		N
10-19 empl.	17%	144
20-49 empl.	27%	184
50-99 empl.	28%	95
100-199 empl.	21%	71
200+ empl.	42%	74
Total	26%	570

Relation between manufacturing firms having assigned NACE-codes for both man. and services, and development of services delivered as part of product package (2004 data, DK)

	% of product innovative firms that have developed one or more new services to be delivered as part of product package	N
Only manufacturing-related NACE-codes	22%	368
Both service and manufacturing-related NACE-codes	33%	202
Total	26%	570

Service-innovative knowledge intensive firms that, in a 2-year period, have developed one or more new services to be delivered as part of a product package including physical products (2005 data, DK)

	Package including physical product supplied by firm itself	Package including physical product supplied by another firm	N
Finance and insurance	10%	6%	89
It-services	46%	13%	155
Other businesses	22%	10%	321
Total	27%	10%	565

Service-innovative knowledge intensive firms that, in a 2-year period, have developed one or more new services to be delivered as part of a product package including physical products (2005 data, DK)

	Package including physical product supplied by firm itself	Package including physical product supplied by another firm	N
10-19 empl.	23%	12%	238
20-49 empl.	30%	9%	186
50-99 empl.	25%	6%	48
100-199 empl.	27%	12%	33
200+ empl.	28%	8%	40
Total	27%	10%	565

Relation between turnover generated from services and development of new services delivered as part of package including physical products (2005 data, DK)

	% innovative service firms that have developed one or more new services to be delivered as part of a package including physical products	N
1-25% of turnover generated from services	68%	57
26-50% of turnover generated from services	66%	56
51-75% of turnover generated from services	56%	39
76-100% of turnover generated from services	27%	401
% of turnover generated from services unknown	67%	12
Total	37%	565

Product-innovative manufacturing firms that have collaborated with suppliers of services in the development process (2004 data, DK)

		N
Food, beverages and tobacco	42%	62
Textiles	43%	21
Wood products	32%	22
Paper and printing	39%	44
Chemical industry	71%	28
Rubber and plastic products	40%	30
Other non-metallic mineral prods.	56%	16
Metal industry	45%	76
Machinery and equipment	23%	117
Electronic components	57%	107
Transport equipment	57%	9
Furniture and manufacturing n.e.c.	50%	38
Total	50%	570

Product-innovative manufacturing firms that have collaborated with suppliers of services in the development process (2004 data, DK)

		N
10-19 empl.	36%	144
20-49 empl.	52%	184
50-99 empl.	51%	95
100-199 empl.	55%	71
200+ empl.	65%	74
Total	50%	570

Service-innovative knowledge intensive service firms that have collaborated with suppliers of physical products/equipment in the development process (2005 data, DK)

		N
Finance and insurance	18%	89
It-services	25%	155
Other business services	23%	321
Total	23%	565

Service-innovative knowledge intensive service firms that have collaborated with suppliers of physical products/equipment in the development process (2005 data, DK)

		N
10-19 empl.	25%	238
20-49 empl.	22%	186
50-99 empl.	10%	48
100-199 empl.	21%	33
200+ empl.	28%	40
Total	23%	565

What do the data tell us?

- Service innovations are not always found in "service firms" (ditto for manufacturing)
- There appears to be a considerable number of "hybrid" innovations – new combinations of services and physical goods. Should they be considered service or product innovations?

Consequences for measurement

- Measuring service innovation is not just a question of what we ask, but also who we ask
  - What: use an all-embracing definition (do we always need to know whether an innovation consists primarily of tangible or intangible elements?)
  - Who: use other criteria than NACE-codes when selecting the respondents

Info

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Data tables are taken from: Jesper Lindgaard Christensen & Ina Drejer (2007), Blurring boundaries between manufacturing and services, *ServINNo Working Paper* (see www.cfa.au.dk/SERVINNO/Publications.htm)