



ANTECEDENTS OF SERVITIZATION

How Do Industry Evolution and Industry Conditions Prompt Product Firms to Offer Services?

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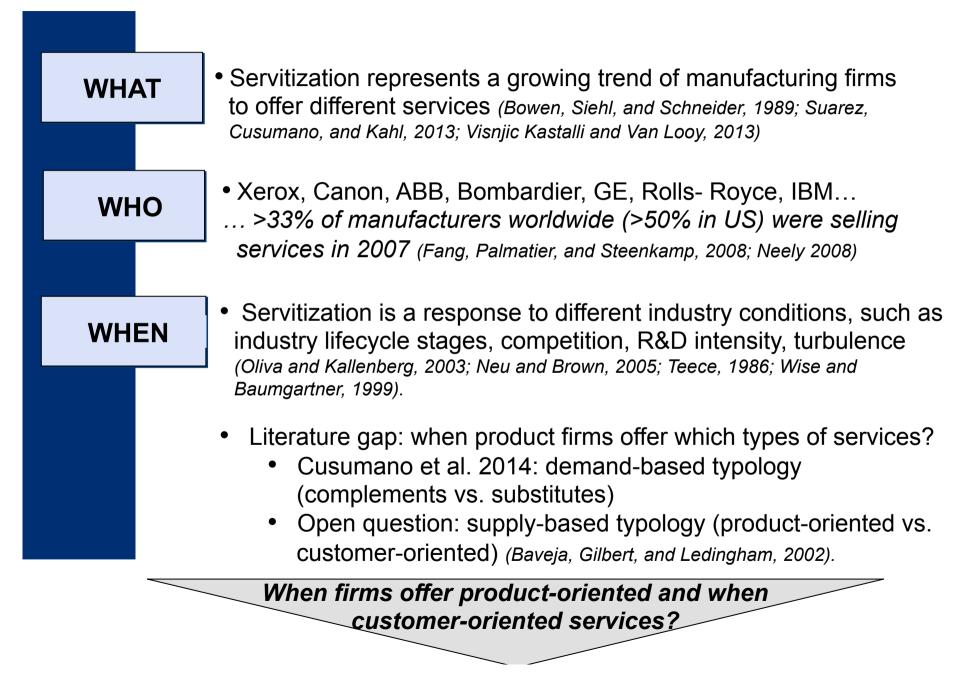
ESADE Business School & Cambridge Service Alliance

Sam Arts

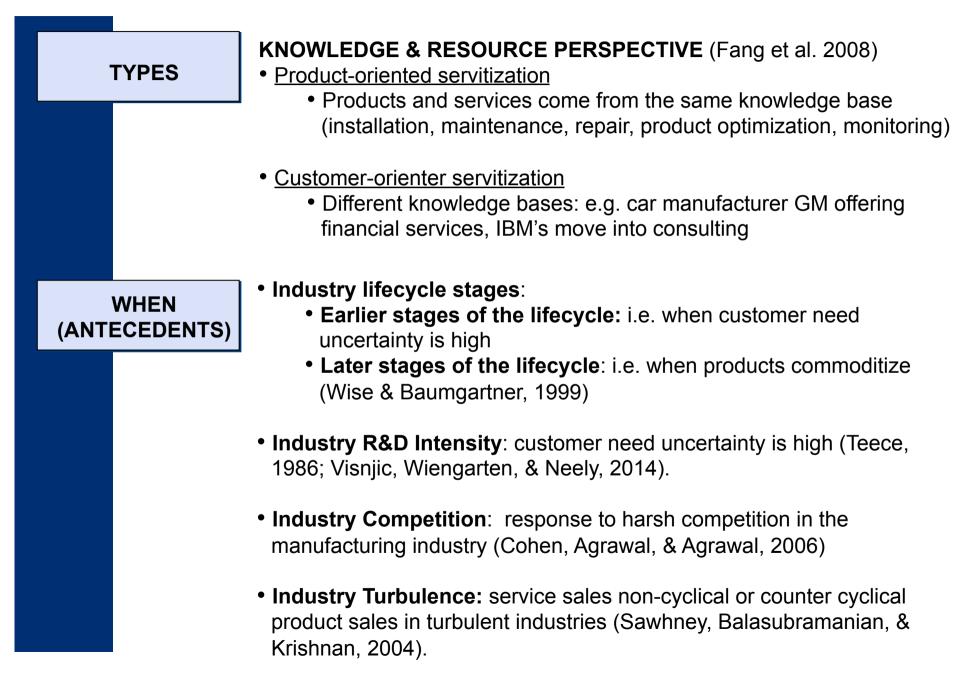
KU Leuven Dimo Ringov

ESADE Business School, Ramon Llull University

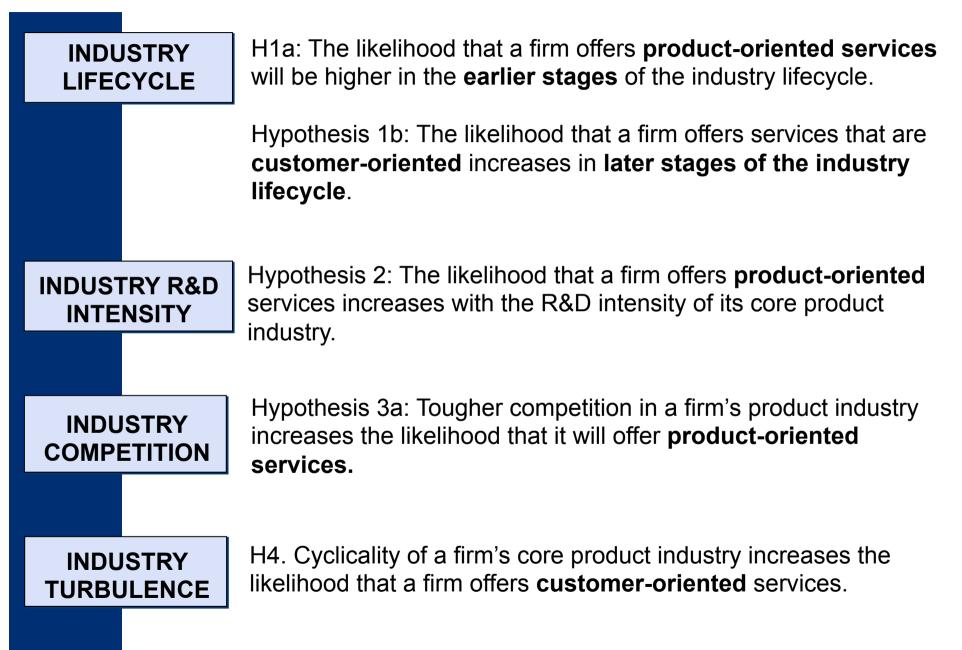
'SERVITIZATION' OF MANUFACTURING FIRMS: WHAT WE KNOW SO FAR



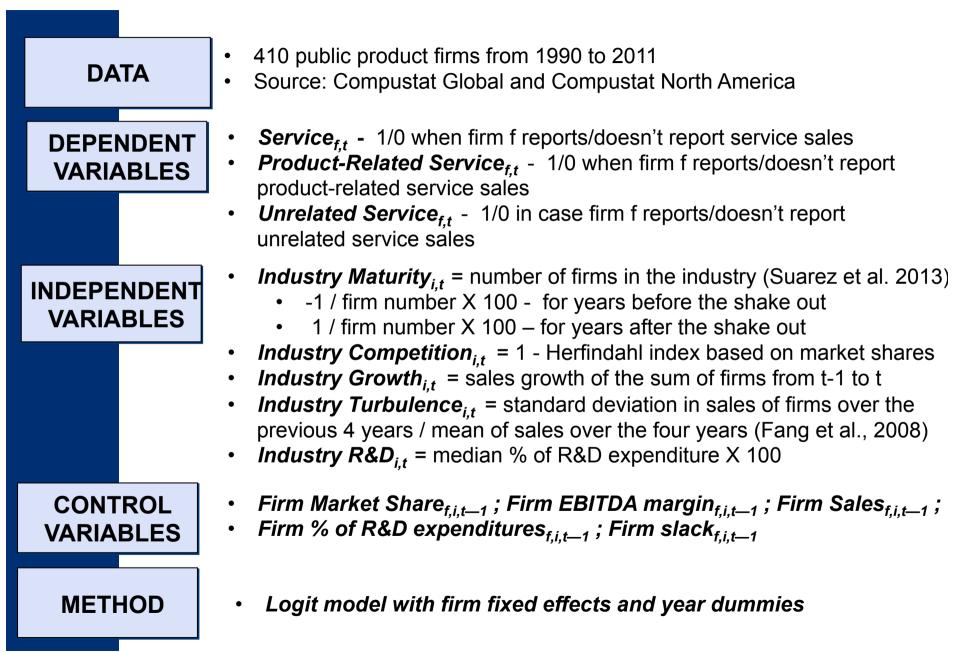
EXISTING LITERATURE ON SERVITIZATION



HYPOTHESES



RESEARCH METHODOLOGY



DESCRIPTIVE STATISTICS

		Mean	Stdev	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Dependent variables														
(1)	service	0.42	0.49	1.00											
(2)	product-oriented service (PO)	0.12	0.33	0.44	1.00										
(3)	customer-oriented service (CO)	0.32	0.47	0.80	-0.13	1.00									
	Independent variables														
(4)	industry maturity	-0.30	2.86	0.07	0.06	0.04	1.00								
(5)	industry competition	0.65	0.25	0.00	0.00	0.00	0.01	1.00							
(6)	industry cyclicality	0.32	0.37	0.03	-0.01	0.04	-0.03	-0.22	1.00						
(7)	industry R&D	6.74	6.44	0.04	0.08	-0.01	0.08	0.01	-0.04	1.00					
	Control variables														
(8)	market share t-1	0.92	4.45	0.08	0.05	0.09	0.02	0.02	-0.02	-0.09	1.00				
(9)	firm ebitda margin t-1	0.03	0.41	-0.01	0.01	-0.02	-0.02	-0.02	0.01	-0.10	0.05	1.00			
(10)	firm sales t-1	5.95	2.70	0.11	0.05	0.11	0.02	-0.10	0.11	-0.29	0.23	0.43	1.00		
(11)	firm R&D t-1	7.73	11.39	0.02	0.04	-0.01	0.05	0.08	-0.06	0.44	-0.08	-0.45	-0.32	1.00	
(12)	firm slack t-1	0.17	0.18	0.03	0.09	-0.03	0.06	0.13	-0.10	0.39	-0.06	-0.15	-0.25	0.46	1.00

Note: number of firms=410; n=5,320

FINDINGS: ENVIRONMENTAL ANTECEDENTS

	(1) PO	(2) PO	(3) PO	(4) PO	(5) PO	(6) PO	(7) CO	(8) CO	(9) CO	(10) CO	(11) CO	(12) CO	(13) setxice
industry, maturity		-0.06** (0.03)				-0.05* (0.03)		0.05**				0.05**	0.00
industry, competition		()	1.18***			1.18***		()	-0.00			0.04	0.35*
industry, cyclicality			(0.31)	-0.18		(0.32) -0.08			(0.21)	0.20*		(0.21) 0.21*	(0.19) 0.18
industry, R&D				(0.18)	0.15***	(0.18) 0.15***				(0.12)	0.02	(0.12) 0.02	(0.11)
Firm controls					(0.04)	(0.04)					(0.02)	(0.02)	(0.02)
market share t-1	-0.01 (0.03)	-0.01 (0.03)	-0.02 (0.03)	-0.01 (0.03)	-0.02 (0.03)	-0.04 (0.03)	0.03 (0.02)	0.03* (0.02)	0.03 (0.02)	0.03 (0.02)	0.03 (0.02)	0.03 (0.02)	0.02 (0.02)
firm chitda margin t-1	-0.19 (0.21)	-0.20 (0.21)	-0.18 (0.21)	-0.18 (0.21)	-0.19 (0.21)	-0.20 (0.22)	-0.00 (0.13)	-0.01 (0.13)	-0.00 (0.13)	-0.00 (0.13)	0.00 (0.13)	-0.01 (0.13)	0.03 (0.14)
firm sales t-1	0.65***	0.65***	0.68***	0.65***	0.67***	0.70***	0.73***	0.73***	0.73***	0.73***	0.72***	0.72***	0.84***
fim R&D t-1	(0.11) 0.02** (0.01)	(0.11) 0.02** (0.01)	(0.11) 0.03*** (0.01)	(0.11) 0.02** (0.01)	(0.11) 0.02** (0.01)	(0.11) 0.02*** (0.01)	(0.08) 0.00 (0.01)	(0.08) 0.01 (0.01)	(0.08) 0.00 (0.01)	(0.08) 0.00 (0.01)	(0.08) 0.00 (0.01)	(0.08) 0.00 (0.01)	(0.07) 0.01** (0.01)
firm slack t-1	0.27 (0.46)	0.22 (0.47)	0.22 (0.47)	0.26 (0.46)	0.32 (0.47)	0.22 (0.47)	0.02 (0.34)	0.03 (0.34)	0.02	0.01 (0.34)	0.01 (0.34)	0.02 (0.35)	0.28 (0.32)
year fixed effects firm fixed effects	Incl.	Incl.	Incl. Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
log likelihood observations	-900.526 2,316	-898.430 2,316	-893.295 2,316	-900.016 2,316	-891.978 2,316	-882.795 2,316	-1807.867 4,480	-1805.641 4,480	-1807.867 4,480	-1806.478 4,480	-1807.393 4,480	-1803.593 4,480	-2109.926 5,320
firms.	174	174	174	174	174	174	343	343	343	343	343	343	410

Note: Robust standard errors in parentheses, * p<0.1, ** p<0.05, *** p<0.01

CONCLUSION & IMPLICATIONS





Product-oriented servitization:

Customer-oriented servitization:

DISTINCT ENVIRONMENTAL ANTECEDENTS

TWO DIFFERENT STRATEGIES

- In emerging, R&D intensive and competitive industry conditions
- Maturing, cyclical industry conditions

- Drawing on and further fostering product knowledge
- Developing knowledge further away from the product base

THANK YOU!