



Impact of firm characteristics on survival: an empirical analysis in the context of service strategies

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Background

Transition to service provision

Initial
research

Implicit assumption that services are always beneficial for firm performance

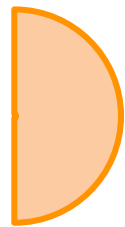
Latest
research

Beginning of a more systematic investigation of the service-performance link

- ❑ The relationship between service provision and financial performance is **far more complex than anticipated** (e.g. *Fang et al., 2008; Gebauer et al., 2012; Kohtamaki et al., 2013*)
- ❑ The outcome of service provision is likely to be **influenced by contextual factors and differences among firms** (e.g. *Antioco et al., 2008; Gebauer et al., 2012; Eggert et al., 2011*)

Our study

How do different CHARACTERISTICS of service-oriented firms correspond with different organisational performance?



The shift to services involves an organisational and capability transformation



Firms' characteristics define the ability to identify and implement the necessary arrangements for services



RBV

In particular, firm characteristics reflect the need to acquire new resources and capabilities for services

Previous literature:
Some suggestions of firm characteristics that affect the service-performance link

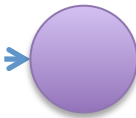
OUR STUDY:
Empirical examination of the joint impact of a set of conceptually relevant firm characteristics

Comparative study of low- and high-performing service-oriented firms

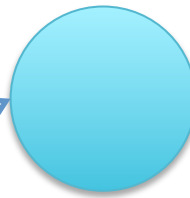
Hypotheses development

1. BUSINESS DIVERSIFICATION

A firm can leverage the knowledge and resources developed for its goods offering to service extensions (Fang et al., 2008)



A more diversified firm is likely to have a broader knowledge and resource endowment

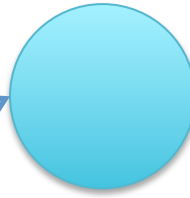


H1. Low-performing service-oriented firms are less diversified than high-performing ones

2. SERVICE STRATEGY

Multiple aspects:

As services become more important in firms' business and revenue models, managers, learn how to manage service production efficiently and effectively (Suarez et al., 2013)



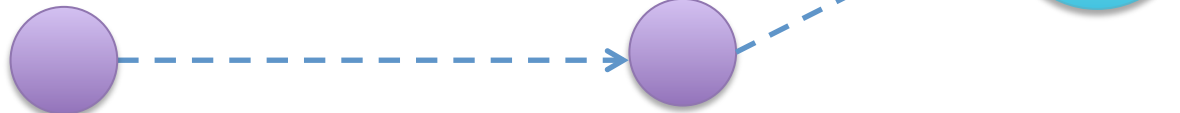
H2a. Low-performing service-oriented firms exhibit lower service volume than high performing ones

Hypotheses development

The proactive offering of a broad range of services encourages a positive perception of value from the customer (Kohtamaki et al., 2013)

Services support product differentiation and generate sale growth

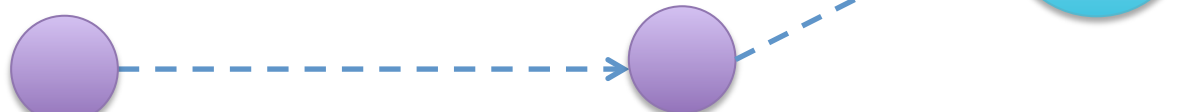
H2b. Low- performing service-oriented firms offer a smaller number of services than high performing ones



Some services overlap with the product business in terms of knowledge and resource requirements

Commonality reduces the need for incremental or dedicated resources for services as well as conflict between different lines of business

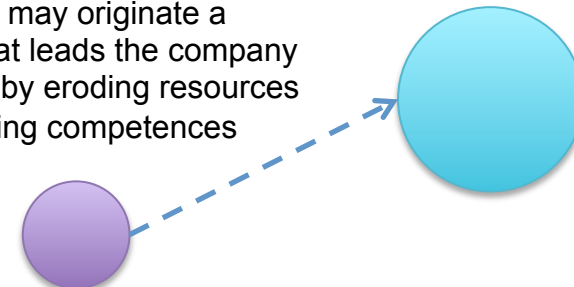
H2c. Low- performing service-oriented firms offer less product-related services than high performing ones



3. RESOURCE SLACK

Lack of slack resources may originate a negative mechanism that leads the company to expand into services by eroding resources for the core manufacturing competences (Nordin et al., 2011)

H3. Low- performing service-oriented firms have less resource slack than high performing ones



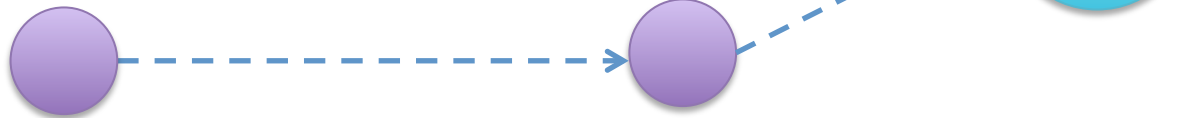
Hypotheses development

4. MARKET SHARE

Because services are often difficult to understand and compare, customers are more likely to source services from a trusted provider (Kohtamaki et al., 2013).

Firms with greater market share have also greater visibility and will generate greater trust.

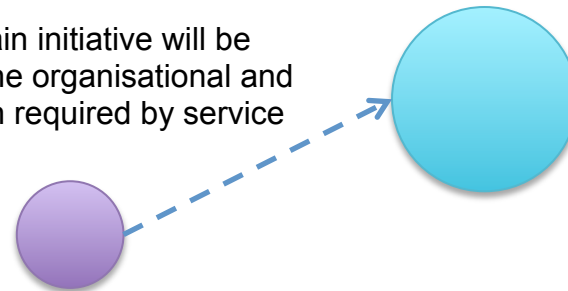
H4. Low- performing service-oriented firms have smaller market share than high performing ones



5. DOMAIN INITIATIVE

Firms with greater domain initiative will be better able to manage the organisational and capability transformation required by service provision

H5. Low- performing service-oriented firms exhibit a lower degree of domain initiative than high performing ones



6. ALLIANCE RESOURCE DIVERSITY

Having the competence of using strategic alliances to expand the firm's knowledge and resource base may streamline service provision (e.g. Kowalkowski et al., 2012)

H6. Low- performing service-oriented firms have less alliance resource diversity than high performing ones



Sample selection

Bankrupt sample

Content analysis of ARs

- ❑ Successfully used in previous business research (e.g. D'Aveni and MacMillan, 1990; Montabon et al., 1997)
- ❑ ARs fairly reflect the focus of organisational strategy. If services are explicitly mentioned in ARs, they are likely to be relevant to corporate strategy
- ❑ No other source of standardised information regarding service activities available

Sample of failed *service-oriented* manufacturing firms

- Trading and Distribution services
- Logistic services
- Procurement and Purchasing services
- Maintenance and Support services
- Certification and Testing services
- Design and Development services
- Consultancy services
- General Outsourcing services
- Financial services
- Renewal and Upgrade services
- End-of-life services
- Installation and Implementation services
- System integration

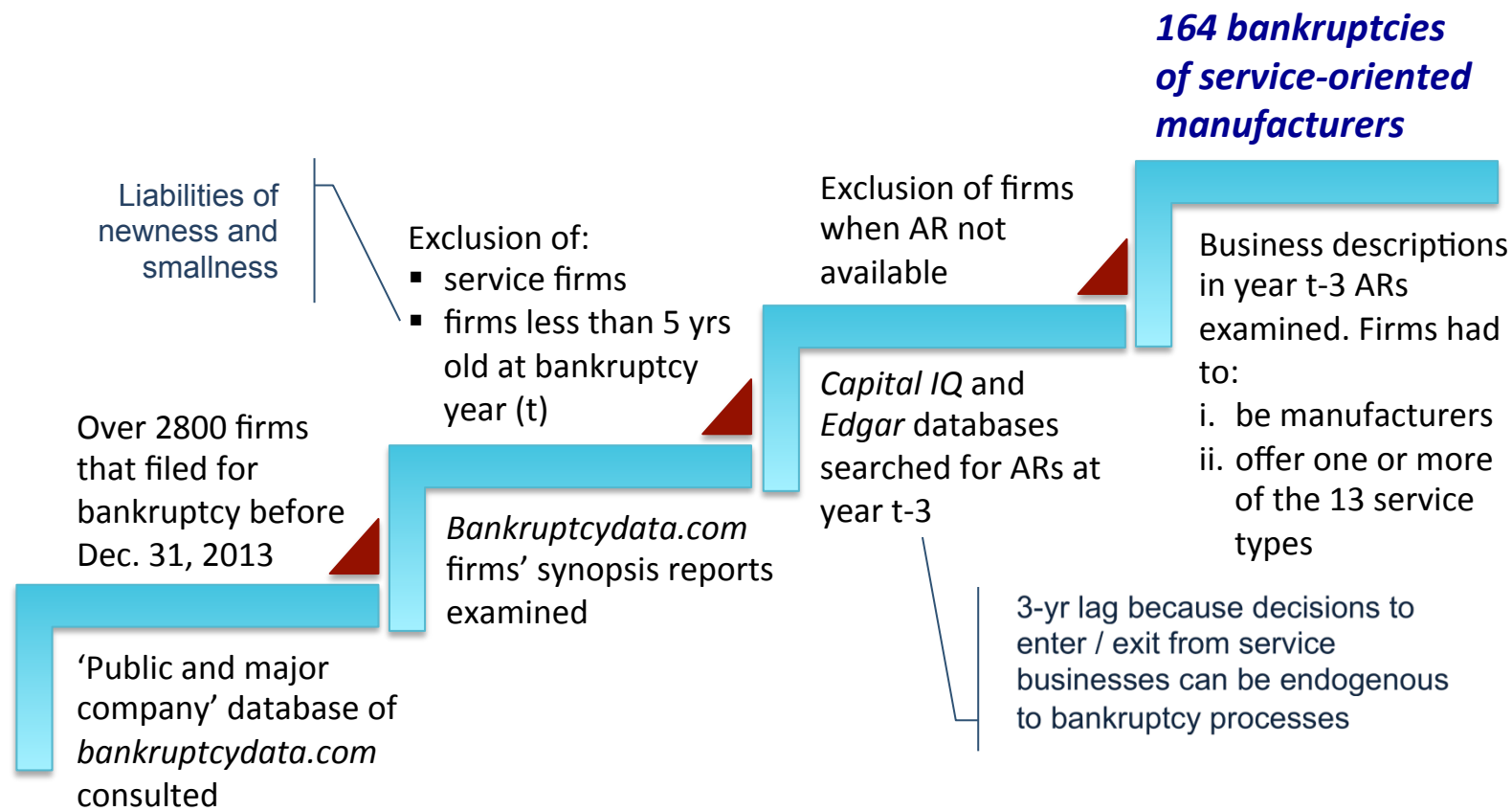
13 empirically developed service types
(including over 90 different services)

(Sources: literature, interactions with service managers, ARs of 30 leading service-oriented manufacturers from different sectors)

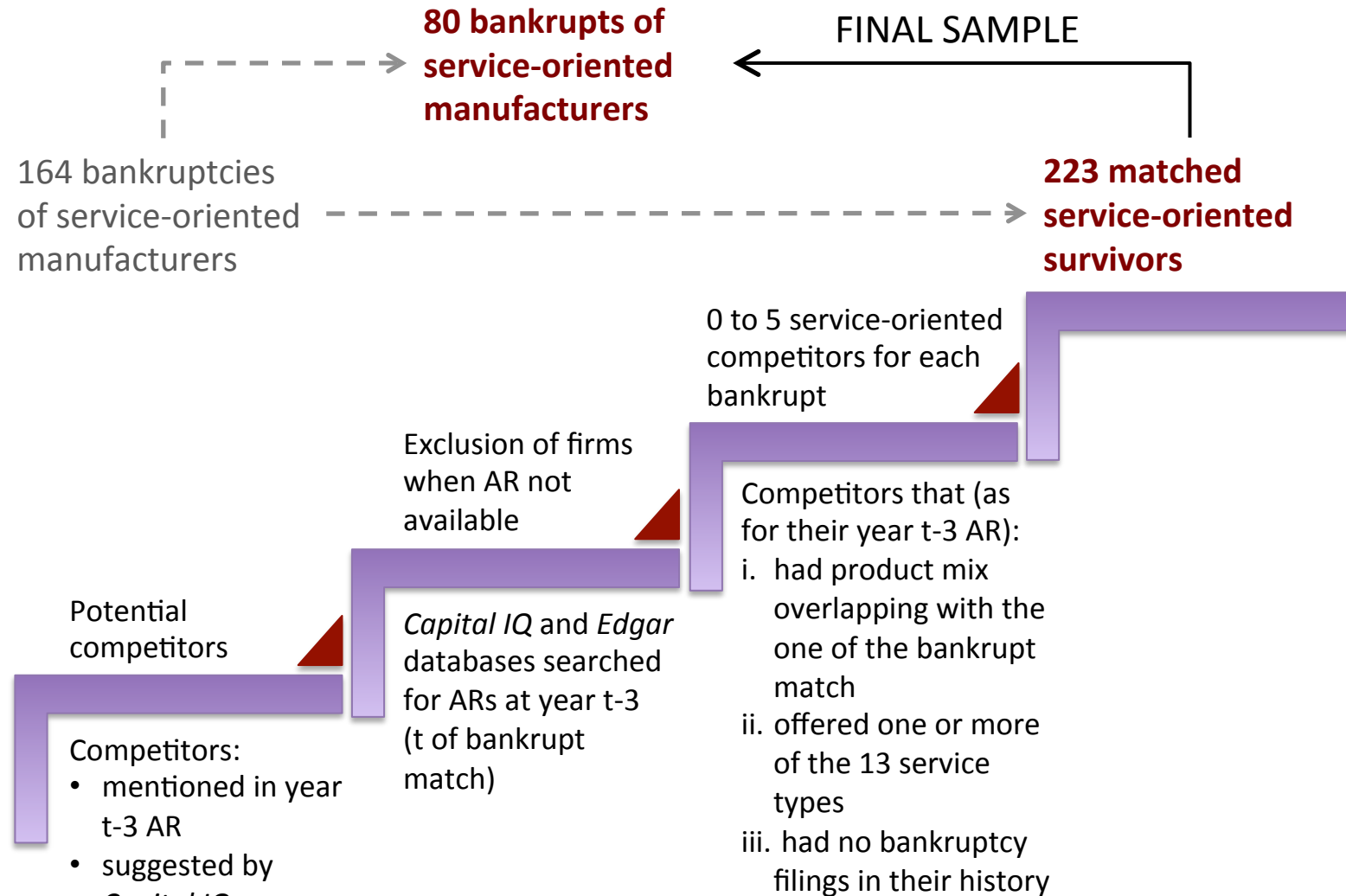
Sample of non-failed *service-oriented* manufacturing competitors

Matched sample

Bankrupt sample



Matched (Survivor) sample



Measures and Data Sources (1/2)

	VARIABLE	Measures	Timeframe	Data sources
Dependent variable	Firm performance	1: bankrupt, 0: non-bankrupt	n.a.	n.a.
Independent variables	Business diversification	<ul style="list-style-type: none"> Unrelated Entropy (Jacquemin and Berry, 1979) based on 2-digit SIC industries 	t-3	Compustat Historical Segments, Capital IQ
	Service strategy	<ul style="list-style-type: none"> Proportion of total revenues in service business segments (%) Number of service types offered Share of product-related services 	t-3	Compustat Historical Segments, Capital IQ
			t-3	ARs
	Resource Slack	<ul style="list-style-type: none"> Retained Earnings / Total sales 	Avg. btw t-7 and t-3	Compustat, Capital IQ, ARs

Product-related services:
Maintenance and Support
Certification and Testing
Design and Development
Consultancy
Renewal and Upgrade
Installation and Implementation
System Integration

Measures and Data Sources (2/2)

	VARIABLE	Measures	Timeframe	Data sources
Control variables	Market Share	<ul style="list-style-type: none"> Firm market share / Three-firm concentration ratio of primary 4-digit SIC industry 	t-5	Compustat, Capital IQ, ARs
	Domain initiative	<ul style="list-style-type: none"> Number of new four-digit SICs added + Number of M&As + Number of strategic alliances and JVs 	Total btw t-10 and t-3	Mergent Online, Capital IQ, SDC Platinum
	Alliance Resource Diversity	<ul style="list-style-type: none"> Number of firms from different industries (2-digit SICs) with which the firm formed alliances and JVs 	Total btw t-10 and t-3	Compustat, Capital IQ, Edgar
	Firm size	<ul style="list-style-type: none"> Ln of total assets 	t-3	Compustat, Capital IQ, Dun & Bradstreet, Hoover's, ARs
	Firm age	<ul style="list-style-type: none"> Yrs since foundation 	t	
Firm liquidity	<ul style="list-style-type: none"> Current ratio 	t-3		
Firm leverage	<ul style="list-style-type: none"> Total debt / Total assets 	t-3		
Firm profitability	<ul style="list-style-type: none"> ROA 	t-3		
	Industry profitability	<ul style="list-style-type: none"> Average ROA in the firm primary industry 	t-3	

Cronbach's alpha 0,642

Results

Logistic regression

Number of obs = 303

LR chi2(14) = 97.05

Prob > chi2 = 0.0000

Log likelihood = 126.37508

Pseudo R2 = 0.2774

Control variables

Bankrupt	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
ln(assets)	-.3074744	.1073835	-2.86	0.004	-.5179422	-.0970066
age	.0032208	.0043637	0.74	0.460	-.0053319	.0117735
ROA	-.0340622	.0105746	-3.22	0.001	-.054788	-.0133365
liquidity	.0035831	.1061123	0.03	0.973	-.2043932	.2115594
leverage	-.4302699	.1428168	-3.01	0.003	-.7101857	-.1503541
industry ROA	-2.344654	1.698754	-1.38	0.168	-5.674151	.9848439
unrelated entropy	-1.524369	.7418269	-2.05	0.040	-2.978323	-.0704147
share service revenues	1.150219	.8462306	1.36	0.174	-.5083628	2.8088
services	-.028277	.0910018	-0.31	0.756	-.2066374	.1500833
share prod. rel. services	-.3203818	.5388737	-0.59	0.552	-1.376555	.7357911
retained earnings/sales	-.3728382	.1748002	-2.13	0.033	-.7154404	-.0302361
relative market share	1.158292	.9429467	1.23	0.219	-.6898499	3.006433
domain initiative	-.4037651	.2285912	-1.77	0.077	-.8517956	.0442653
alliance resource divers.	.0042101	.0062869	0.67	0.503	-.0081121	.0165323
_cons	1.630576	.8396624	1.94	0.052	-.0151324	3.276284

Highest correlation btw independent variables = .58 (size & domain initiative)

VIF < 2.7 for all independent variables

Discussion

Significant differences between bankrupts and survivors in:

- ❑ **Level of diversification.** Corporate strategy may increase a firm's ability to adopt a service orientation
- ❑ **Level of slack resources.** Service activities require high discretion slack
- ❑ **Degree of domain initiative.** Importance of the history of the firm and its familiarity with the change process

No significant differences between bankrupts and survivors in:

- ❑ **Market share.** Other proxies for visibility and reputation of the company
- ❑ **Service strategy variable.** *Service strategy orientation is important but alone it is insufficient to allow firms to escape from failure*

Thank you