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Innovation in Irish Food SMEs: the Good, the Bad and the Different

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Outline

- Background
- Methodology
- Key findings
- Implications



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Background to the research



Food Industry



Publicly funded research





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Research Methodology – A Mixed Method Approach

qualitative

quantitative

qualitative

Literature review


Semi-structured interviews (n=6)

With:

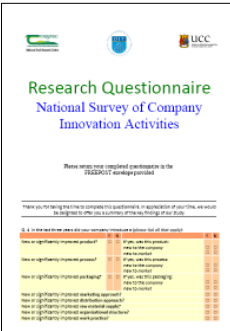
1. Representatives from the food industry
2. Representatives from organisations who support the Irish food industry

Postal questionnaire to industry (n= 399)

Follow-up, semi-structured interviews (n=7)



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Total Design Method
Round 1 (Week 1)
 Questionnaire
 Cover letter

Reminder letter (Week 3)

RELAY reminder (Week 3)

Round 2 (Week 5)
 Follow-up letter
 Questionnaire
Follow-up phone call (Week 7)



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Response rate

	n	n	%
Initially sent	445		
Post office returns (includes companies which have ceased trading)	46		
Final mailing		399	100.0
Returned completed	127	31.8	



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Descriptive statistics

Region	n(%)	Sector	n(%)
Dublin	17 (13.4)	Meat	27 (21.3)
Border	22 (17.3)	Combination	23 (18.1)
West	13 (10.2)	Prepared consumer foods	21 (16.5)
Mid-west	4 (3.1)	Dairy	13 (10.2)
South-west	31 (24.4)	Seafood	10 (7.9)
Midlands	7 (5.5)	Other e.g. confectionary	10 (7.9)
Mid-east	14 (11.0)	Fresh Produce	8 (6.3)
South-east	14 (11.0)	Beverages	7 (5.5)
		Ingredients	3 (2.4)
Employees	n (%)	Exporting Status	n (%)
>10	12 (9.4)	75.6% Company exports	97 (78)
10-49	50 (39.4)		
50-99	25 (19.7)		
100-249	21 (16.5)		
250+	19 (15.0)		



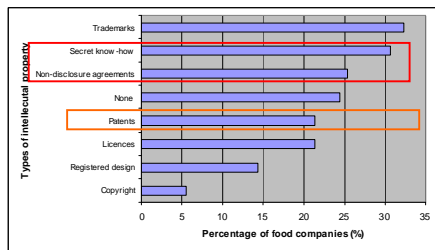
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- The Good....
 - Type and level of innovation
 - Supporting internal factors



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Traditional measures of innovation...IP



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Measures focused on outputs of innovation

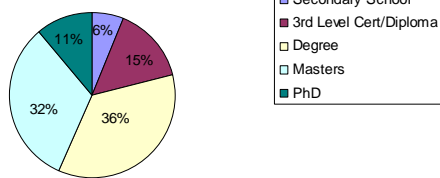
	n (%)	New to company n (%)	New to industry n (%)
Product Innovation	99 (78.0)	87 (68.5)	53 (41.7)
Process Innovation	67 (53.8)	61 (48.0)	19 (15.0)
Packaging Innovation	72 (56.7)	63 (49.6)	26 (20.5)
Marketing Innovation	53 (41.7)		
Distribution Innovation	34 (26.8)		
Raw material supply Innovation	53 (41.7)		
Organisation Structure Innovation	60 (47.2)		
Work Practice Innovation	70 (55.1)		



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Internal – Human Capital

Qualification level of employees in Irish food SMEs



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NPD facilities – physical infrastructure

	n (%)	n (%)
NPD Function		76 (59.8)
NPD Facility		62 (48.8)
Kitchen	53 (41.7)	
Laboratory	32 (25.2)	
Pilot Plant	24 (18.9)	

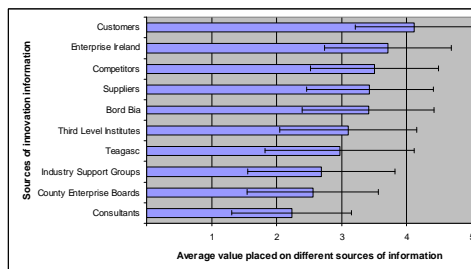


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- The bad.....
 - Perceived value of external sources of knowledge lower than desirable for some companies, particularly those with lower levels of absorption capacity
 - Perceived impact of external factors on innovation lower for non-innovators than innovators



Average value placed on different knowledge sources



Lower levels of absorption capacity associated with lower value on external sources of information

M2 Perceived value of different levels of external sources of innovation (n=95)*	
	No. Companies (%)
Level 1 (Lowest)	24 (25.3)
Level 2 (Middle)	28 (29.5)
Level 3 (Highest)	43 (45.3)



External Factors	n	None (%)	Some (%)	A lot (%)	Mean	Sd
Consumer trends	108	2.6	4.02	49.6	3.6	1.32
State of economy	109	7.7	37.6	47.9	3.4	1.04
Retailers	108	12	35.9	44.4	3.3	1.15
Competitors	106	6.8	49.6	34.2	3.2	1.01
Wages bill	107	14.5	38.5	38.5	3.1	1.32
Exchange rates	107	23.1	31.6	36.8	2.9	1.34
State Grants	104	23.1	37.6	28.2	2.9	1.19
Energy costs	105	21.4	34.2	34.2	2.8	1.34
Raw materials	107	14.5	51.3	25.6	2.8	1.28
Availability of credit	106	24.8	40.2	25.6	2.7	1.51
Waste charges	105	26.5	38.5	24.8	2.6	1.45
Suppliers	106	25.6	50.4	14.5	2.3	1.4
Tax incentives	104	37.6	39.3	17.9	2.3	1.43



Comparison of companies who engaged in market research across different types of innovation

		Engaged in market research			χ^2 (p value)
		Yes (n=86) %	No (n=35) %	Total (n=121) %	
Product innovation	Yes	90.7	69.3	84.2	9.18**
	No	9.3	35.7	15.8	
Process innovation	Yes	69.2	37.9	60.7	7.42**
	No	30.8	62.1	39.3	
Packaging innovation	Yes	70.4	48.3	64.5	3.64
	No	29.6	51.7	35.5	
Technological innovation	Yes	55.6	76.7	90.8	7.56**
	No	4.4	23.3	9.2	
Administrative innovation	Yes	85.6	63.3	80.0	5.63*
	No	14.4	36.7	20.0	

***Significant at 0.1%, **significant at 1%, significant at 5%



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The different

- Packaging innovation seems to be different to product and process innovation
- Drivers which motivated those engaging in product and process innovations did not appear to transfer to packaging innovators
 - Influence of external factors
 - Use of market research
- In addition, internal factors which facilitated the other forms of technological innovation did not seem to affect packaging innovations in the same way
- Perceived utility of external source of knowledge
 - Publicly-funded support agencies are not thought to be of value in terms of assisting packaging innovation.
 - The input of commercial sources (e.g. retailers and suppliers) may be particularly influential here.



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Implications

- How should innovation be measured?
 - Traditional measures vs output measures, radical vs incremental
- How should innovation support measures be targeted?
 - Need to address pre-contemplative phase
- How much innovation activities should/can be outsourced?
 - Packaging vs process and product innovation



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