

Design Difference – Research Methodology

The aim of our approach was to conduct interviews with a robust sample of Irish SMEs ensuring that it was possible to analyse the data by selected sectors, size of business and region.

Questionnaire design

The Centre for Design Innovation had previously commissioned qualitative research with businesses to identify the key issues that they have in relation to design and innovation. Based on the findings from this study and research that had been conducted in other countries a questionnaire was developed to elicit the information required meeting the overall objectives of the study. A copy of the questionnaire is included at Appendix A

Sample design

The sampling frame for the survey focused on SMEs with between 10 and 250 employees. It was important for the Centre for Design Innovation to be able to make comparisons of the findings by size of business, sector and region. Therefore it was agreed that quotas would be applied to the number of interviews conducted based on size of business, region and sector so that sufficient interviews were conducted to allow this sub group analysis. However, the Centre also wanted to be able to report at a high level on the status of Irish SMEs. This meant that the quota based results had to be weighted by sector and size to give best possible representation of all Irish SMEs.

A key challenge for the study was to identify the structure of Irish businesses with between 10 and 250 employees by size, sector and region to allow the weighting factors to be determined. Although there are a number of sources of this type of information, none held the information in exactly the format required. For example, many databases count the number of business enterprises rather than the actual number of companies and this can lead to the figures being inflated – eg each branch/office/outlet of a company is included in the count rather than the company being counted just once. Similarly, companies that are part of a wider global network of companies are listed based on the number of employees that they have in Ireland – any many of these are counted in the databases as having between 10 and 250 employees.

After reviewing all possible sources of data publicly available to use, it was decided to source the required information on the structure of Irish businesses from a data house called www.marketingfile.com, which holds comprehensive details of business enterprises in both the Republic of Ireland and Northern Ireland. This source was also used to provide listings of companies for contact during the survey. Details of the structure are included at Appendix B.

The businesses were interviewed by a team of executive researchers using a CATI (Computer Assisted Telephone Interviews) system. The interviews took approximately 12 to 15 minutes to complete. A total of 405 interviews were conducted. A profile of respondents to the survey is included at Appendix C

On completion of the survey open-ended questions were coded and the data was analysed using computer-based statistical software packages. Weightings were applied at the analysis stage to the sample so that the results were representative of SMEs at the overall level. Details of the weightings used are included at Appendix B.

Design Ladder Approach.

The rationale for developing the design ladder for our research was to rank the SMEs we sampled with respect to certain specific responses from a number of questions they were asked throughout the interview process. The questions that were used for constructing the design ladder are contained in appendix D. Weighted scores were then applied based on sample responses. For example an SME that considers that design is Integral to the company's operations would score 5, a company that considers design as having a limited role to play within their company would score 1. On this scoring basis we were able to categorise SMEs on a ranking scale based on the following four steps:

- **Step 4 - Design as Innovation:** Design drives all business activities to better understand user needs.
- **Step 3 - Design as Process:** is used to improve efficiency in bringing products and services to market.
- **Step 2 – Design as Styling:** Design relates primarily to the external styling or form of a product.
- **Step 1 – Non-Design:** Design plays a negligible role in a company's business.

Appendix A – Questionnaire Design

Quantitative Irish SME Survey on Design & Innovation

R. Recruitment Questionnaire

Hello, my name is, from Perceptive Insight, an independent market research agency.

Ask to speak with the company owner/MD/CEO:

Record name: _____

Record title: _____

When speaking with the right person explain:

We are undertaking a survey on behalf of the Centre for Design Innovation. The Centre for Design Innovation is the National centre of excellence for the research, understanding and promotion of the effective use of design and innovation within business and the public sector in Ireland. The aim of the survey is to better understand the attitudes of SMEs toward design and innovation and the activities they are undertaking in these areas.

R1 Would you be willing to take part in this survey? It should take no more than 15 minutes of your time.

- | | | |
|-----|---|--|
| Yes | 1 | Proceed with recruitment questions |
| Yes | 2 | Make appointment |
| No | 3 | Thank and close (record reason for refusal) |

R2: Firstly, can you please confirm your company's main business activity?
(RECORD AND CODE BELOW)

- | | | |
|---------------------------------------|---|-----------------|
| Manufacturing | 1 | Continue |
| Wholesale | 2 | Continue |
| Retail | 3 | Continue |
| Hospitality and leisure | 4 | Continue |
| Business and finance activities | 5 | Continue |
| Transport, storage and communications | 6 | Continue |
| Other | 7 | Close |

R3: How many people does your company employ in Ireland?

≤10	1	Close
11 to 49	2	Continue
50 to 149	3	Continue
150 to 250	4	Continue
More than 250	5	Close

R4: Can you confirm, in which county your business is based?

(SINGLE CODE) IF MORE THAN 1 COUNTY ASK FOR LOCATION OF HEAD OFFICE IN IRELAND

Carlow	1	Antrim	27
Cavan	2	Armagh	28
Clare	3	Down	29
Cork	4	Fermanagh	30
Donegal	5	L/Derry	31
Dublin	6	Tyrone	32
Galway	7		
Kerry	8		
Kildare	9		
Kilkenny	10		
Laois	11		
Leitrim	12		
Limerick	13		
Longford	14		
Louth	15		
Mayo	16		
Meath	17		
Monaghan	18		
Offaly	19		
Roscommon	20		
Sligo	21		
Tipperary	22		
Waterford	23		
West Meath	24		
Wexford	25		
Wicklow	26		

MAIN QUESTIONNAIRE

A. Business Success

I would like to start by asking some questions about the current business environment.

QA.1 Looking back over the past 12 months how would you describe the demand for your company's products/services compared to the previous year, 2005. Has there been: **(SINGLE CODE)**

Significant growth on 2005	1
Modest growth on 2005	2
No change compared to 2005	3
A modest reduction compared to 2005	4
A significant reduction compared to 2005	5

QA.2 Apart from demand or issues relating to sales and orders, what would you say has been the main issue or problem that has influenced your company over the past 12 months? **(DO NOT READ OUT, WRITE IN FIRST ANSWER ONLY, RECORD VERBATIM AND CODE)**

ANSWER

Economy /lack of activity	1
Security/political situation	2
Competition/discounting	3
Lack of consumer confidence/no feel good factor	4
Profitability / margins	5
Cashflow	6
Raw materials/prices/supply/quality	7
Government policy /legislation/spending	8
Interest rates	9
Capacity / meeting orders	10
Finance / availability of funds	11
Exports / problems in foreign markets	12
Recruitment of skilled staff / labour shortages	13
Currency / exchange rates	14
Company re-organising / company specific	15
Other	16
Nothing	17
Don't Know	18

QA.3 What is the main priority for your firm over the next 12 months?
(SINGLE CODE)

- Survival – remain in business by whatever means
- Stabilise output – consolidate the business
- Grow moderately (up to 10 %)
- Grow rapidly (11% or more)
- Refused (**DO NOT READ OUT**)
- Don't know (**DO NOT READ OUT**)

1
2
3
4
X
0

QA.4 I would like to ask your opinion about the key factors that contribute to the success of a business. On a scale of one to 10, where 10 is very important and 1 not at all important how would you rate each of the following
(READ OUT, WRITE IN SCORE) <ROTATE ORDER>

- Financial management
- Research and Development
- Quality of staff
- Design
- Operational management
- Internal communication
- Marketing
- Innovation
- Customer service and relationship

I am now going to ask some questions about how your company competes

QA.5 First of all, do you have customers in either the private or public sector? (SINGLE CODE)

- Private sector only
- Public sector only
- Private and public sector

1
2
3

<if code 1 or 3 @ QA.5, ask QA.6, others go to QA.7>

QA.6 Which two of the following attributes best describes the basis on which you think your **private** sector customers make their purchases from you? (TICK TWO CODES)

- Price / cost
- Added value of product /service
- Distribution / availability (ability to reach more people)
- Innovation (ie more/new products to existing or new markets)

<if code 2 or 3 @ QA.5, ask QA.7, others go to QA8>

QA.7 Which two of the following attributes best describes the basis on which you think

your **public** sector customers make their purchases from you? (TICK TWO CODES)

Price / cost	
Added value of product /service	
Distribution / availability (ability to reach more people)	
Innovation (ie more/new products to existing or new markets)	

QA.8 How frequently do you propose new ideas, products or services to your customers? (SINGLE CODE)

Frequently	1
Sometimes	2
Rarely <Go to Section B>	3
Do not propose new ideas <Go to Section B>	X
Don't know (DO NOT READ OUT)	0

<if code 1 or 2 @ QA.8, ask QA.9, others go to Section B>

QA.9 How often are your new ideas, products or services taken up? (SINGLE CODE)

Frequently	1
Sometimes	2
Rarely	3
Never	4
Don't know (DO NOT READ OUT)	0

B. Innovation

ASK ALL

I now want you to think about innovation and the activities that your company undertakes in this regard

QB.1 Which of the following innovation related activities has your company undertaken in the last 3 years?

(READ OUT, MULTIPLE CODE)

Improved existing products & services	
Reduced costs of product and services	
Introduced new products & services for existing customers	
Introduced new products & services for new customers	
Other (SPECIFY _____)	
Do not innovate	X
Don't know (DO NOT READ OUT)	0

QB.2 And to what extent has innovation enabled your company to maintain a competitive edge over the last 3 years? **(READ OUT, SINGLE CODE)**

To a great extent	4
To some extent	3
To a limited extent	2
Not at all	1
Don't know (DO NOT READ OUT)	0

QB.3 Where does innovation rank among your company's strategic priorities for 2007? **(READ OUT, SINGLE CODE)**

Top priority	4
One of Top 3 priorities	3
One of Top 10 priorities	2
Not on list of priorities	1
Don't know (DO NOT READ OUT)	0

QB.4 Compared with 2006, do you expect your company's investment in innovation in 2007 to: **(READ OUT, SINGLE CODE)**

Increase significantly (+>10%)	5
Increase slightly (+1 – 10%)	4
Stay roughly the same	3
Decrease slightly (- 1 – 10%)	2
Decrease significantly (->10%)	1
Don't know (DO NOT READ OUT)	0

C. Design

The next few questions are about design. Firstly, want you to carefully consider the following definition of design.

'Design is a process that leads to successful innovation by better understanding and fulfilling user needs. It can be applied to your products, services, internal systems, or external communications.'

QC.1 In which of the following areas does your company use design?
(READ OUT, MULTIPLE CODE) <rotate order>

Internally facing functions, such as workplace interior and internal communications

Externally facing functions, such as corporate communications, branding marketing and website

Product or process engineering

Research and development, including user or market research

New product or service development

Strategic planning

Other (**SPECIFY:** _____)

None of the above

QC.2 Which of the following four statements most closely represents the role design plays in your company? **(READ OUT, SINGLE CODE)**

Design is integral to the company's operation

Design has a significant role to play

Design has a limited role to play

Design has no role to play at all

Don't know (**DO NOT READ OUT**)

4
3
2
1
0

QC.3 I would like you to think the reasons and factors that influence your company's use of design. On a scale of 1 to 10, where 1 is no influence at all and 10 is major influence can you please rate each of the following in terms of the influence they have on the use of design?

(READ OUT, TICK THREE) <rotate order>

To develop innovative products and services

To avoid trading in commodity products/services

To develop higher quality products/services

- To provide more added value to customers
- To move into new markets
- To achieve cost reduction
- To build your brand and image
- To support the marketing of your products/services

QC.4 Over the last 3 years, to what extent would you say that design has contributed to the following in your firm (**READ OUT, SINGLE CODE**) <rotate order>

	To a great extent	To some extent	To a limited extent	Not at all	Don't know
Development of new markets	4	3	2	1	0
Increased market share	4	3	2	1	0
New products / services	4	3	2	1	0
Competitiveness	4	3	2	1	0
Increased employment	4	3	2	1	0
Increased turnover	4	3	2	1	0
Increased profit	4	3	2	1	0
Maintaining your competitive edge	4	3	2	1	0

D. Investment in Design

QD.1 Which of the following applies to your company:
(**READ OUT, MULTIPLE CODE**)

- We have a dedicated design department
- We employ internal designers (people whose main job is design)
- We employ people who do design as a secondary part of their job
- We employ external design consultant(s) on an ad hoc basis
- No design activity
- Don't know (**DO NOT READ OUT**)

1
2
3
4
5
0

QD.2 In the past year, has the amount your company invests in design:
(**READ OUT, SINGLE CODE**)

- Increased significantly (+>10%)
- Increased slightly (+1 – 10%)
- Stay roughly the same

5
4
3

Decreased slightly (- 1 – 10%)
 Decreased significantly (->10%)
 Don't know (**DO NOT READ OUT**)

2
1
0

QD.3 Compared with 2006, do you expect your company's investment in design in 2007 to: (**READ OUT, SINGLE CODE**)

Increase significantly (+>10%)
 Increase slightly (+1 – 10%)
 Stay roughly the same
 Decrease slightly (- 1 – 10%)
 Decrease significantly (->10%)
 Don't know (**DO NOT READ OUT**)

5
4
3
2
1
0

E. New Product/Service Development

QE.1 Has your company developed any new products or services in the last 3 years?

Yes
 No
 Don't know (**DO NOT READ OUT**)

1
2
0

<If code 1 @ QE.1, ask QE.2, others go to QE.4>

QE.2 How is design used in the development of new products/services?
 (**READ OUT, SINGLE CODE**)

Design is not used in the process
 Design is used to a limited extent
 Design is used in some specific stages of the process
 Design is used in all stages of the process
 Design leads and guides the whole process
 Don't know (**DO NOT READ OUT**)

1
2
3
4
5
0

QE.3 Has your company worked with higher education institutions or other specialist providers to help develop the new product/service?

Yes
 No
 Don't know (**DO NOT READ OUT**)

1
2
0

ASK ALL

QE.4 Has your company won any design awards in the last 3 years?

Yes	1
No	2
Don't know (DO NOT READ OUT)	0

F. Attitudes toward Design Innovation

QF.1 I am going to read out a list of statements about design and innovation, and I would like you to tell me to what extent you agree or disagree with each of them, using a five point scale, where 5 means totally agree and 1 totally disagree.

Totally agree	5
Agree	4
Neither agree/nor disagree	3
Disagree	2
Totally disagree	1
Don't know (DO NOT READ OUT)	0

(READ OUT, ONE CODE EACH) <rotate order>

It is important that Irish businesses have a reputation for design & innovation	
We're finding it difficult to innovate or to come up with new ideas	
There is an innovation friendly culture in Ireland	
Innovation is too risky for us	
It is important to involve our customers in the design process	
Innovation is overrated or hyped	
Design is important to help us stay ahead of our competitors	
There is a positive link between investment in design and profitability	
It is easy to source people with the right skills to help us with our design activities	
Design plays an important role in fulfilling our customers' needs	

G. Company Details

QG.1 I would like to finish by asking some questions about your company. For how many years has your company been in business? (SINGLE CODE)

Less than 1 year	1
1 – 4 years	2
5 – 9 years	3
10 – 20 years	4
21 years or longer	5
Don't know (DO NOT READ OUT)	0

QG.2 What was your company's turnover last year? (SINGLE CODE)

Less than €250k (£170k)
€250k - €499k (£171k to £340k)
€500k - €999k (£341k to £670k)
€1m - €1.9m (£670k to £1.3m)
€2m - €4.9m (£1.4m to £3.3m)
€5m or more (£3.4m or more)
Refused
Don't know (DO NOT READ OUT)

1
2
3
4
5
6
X
0

QG.3 How has your turnover changed compared with the previous year?
(SINGLE CODE)

Decreased a lot (11% or more)
Decreased a little (1- 10 %)
Stay the same
Increased a little (1- 10 %)
Increased a lot (11% or more)
Refused
Don't know (DO NOT READ OUT)

1
2
3
4
5
X
0

QG.4 What proportion of your turnover is export?
(SINGLE CODE)

0%
1 - 5%
6 - 25%
26 - 50%
51 - 75%
76 - 100%
Refused
Don't know (DO NOT READ OUT)

1
2
3
4
5
6
X
0

QG.5 Finally, would you be interested in taking part in further research or consultation by the Centre for Design Innovation or receiving an electronic copy of the report from this study?

Yes, take part in further research
Yes, receive electronic copy of report
No
Don't know (DO NOT READ OUT)

1
2
3
0

If yes request email
address _____

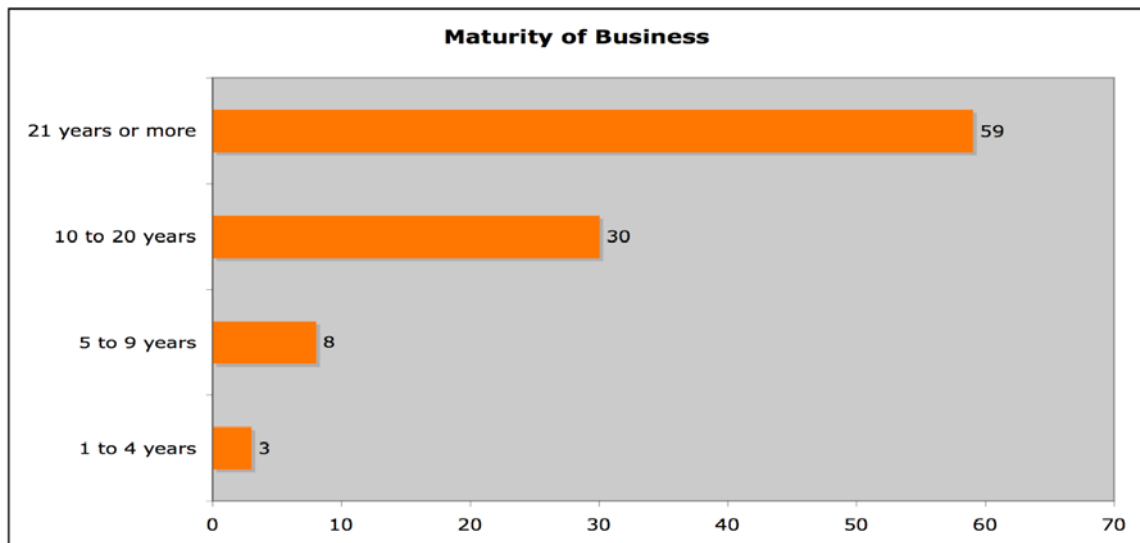
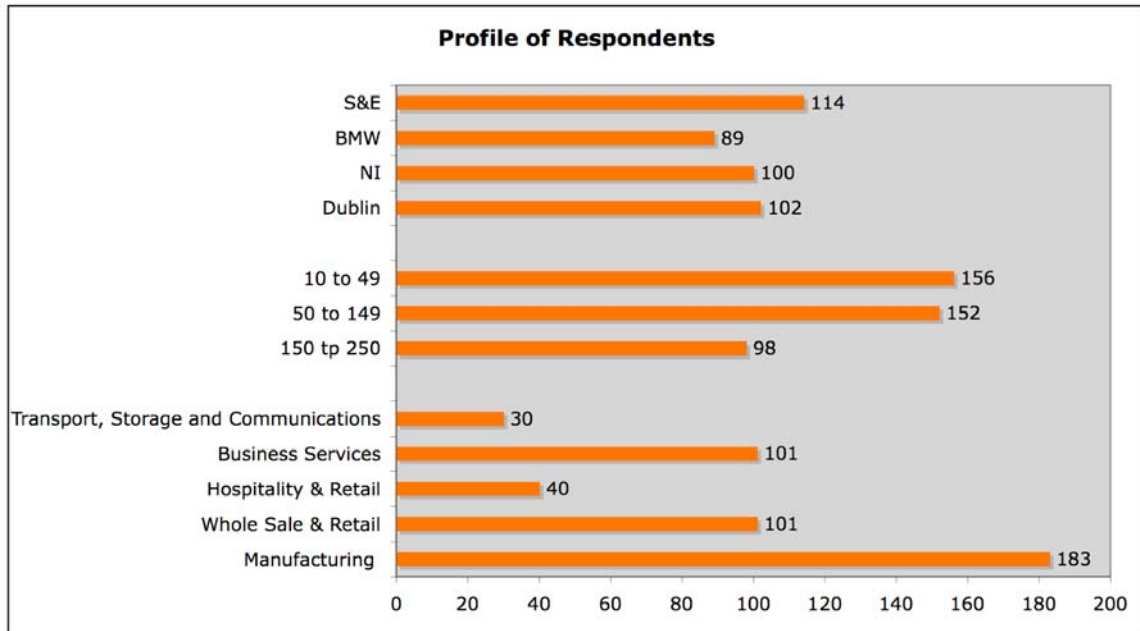
Thank & Conclude

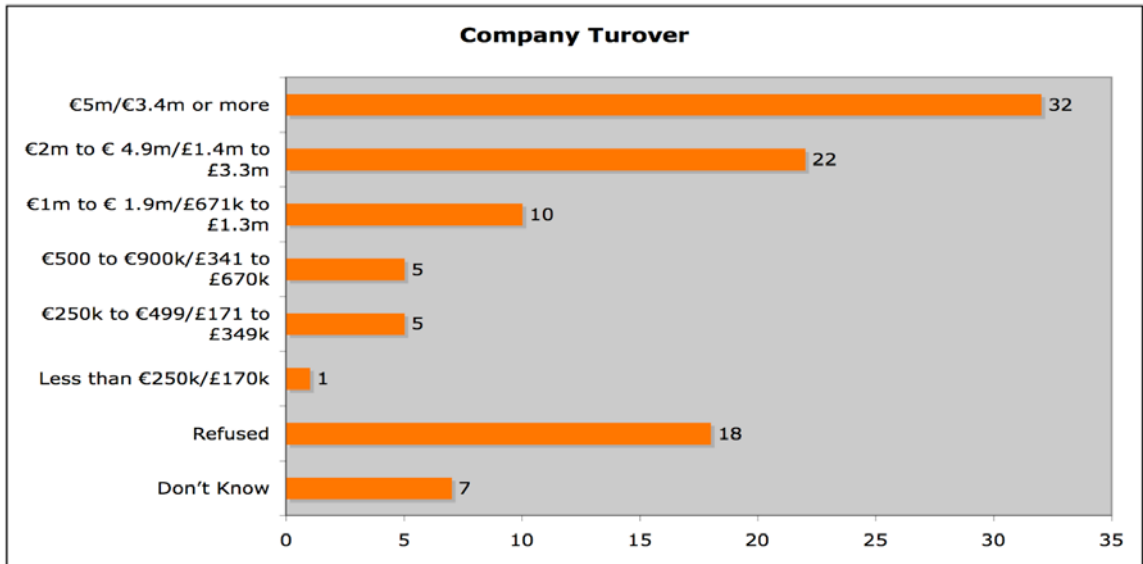
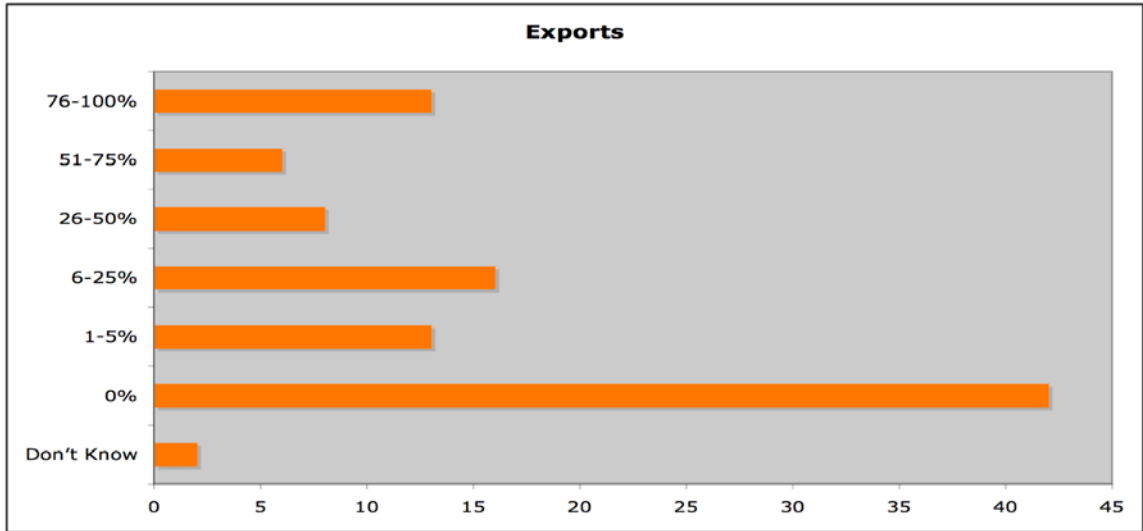
Appendix B – Sampling and Weighting

	Number of employees	Percentage of businesses by sector	Number of interviews required to be representative by sector	Percentage size breakdown by sector	Number of interviews required to be representative by size and sector	Number of completed interviews	Weighting factor
<i>Manufacturing</i>	10 to 49	25%	101.25	78%	78.975	52	1.51875
	50 to 149			18%	18.225	42	0.43393
	150 to 250			4%	4.05	39	0.10385
<i>Wholesale and retail</i>	10 to 49	30%	121.5	83%	100.845	40	2.52113
	50 to 149			14%	17.01	43	0.39558
	150 to 250			3%	3.645	18	0.20250
<i>Hospitality and leisure</i>	10 to 49	9%	36.45	76%	27.702	14	1.97871
	50 to 149			22%	8.019	16	0.50119
	150 to 250			2%	0.729	10	0.07290
<i>Business and financial services</i>	10 to 49	27%	109.35	88%	96.228	40	2.40570
	50 to 149			10%	10.935	39	0.28038
	150 to 250			2%	2.187	22	0.09941
<i>Transport, storage and communications</i>	10 to 49	9%	36.45	86%	31.347	9	3.48300
	50 to 149			12%	4.374	12	0.36450
	150 to 250			2%	0.729	9	0.08100
Total		100%	405		405	405	

www.marketingfile.com

Appendix C – Profile of respondents





Appendix D – Design Ladder Questions

Design ladder scoring mechanism

Each respondents is scored based on their response to each of the questions detailed below. The scores are added together to give an overall score for each respondent. The minimum possible score is 0 and maximum is 25. Based on their overall score each respondents has been categorised into 1 of 4 steps as follows:

- Step 1 – Scores 0-6
- Step 2 – Scores 7-10
- Step 3 – Scores 11-18
- Step 4 – Scores 19-25

Scoring criteria

QB.3 Where does innovation rank among your company’s strategic priorities for 2007?

	Score
Top priority	5
One of Top 3 priorities	4
One of Top 10 priorities	1
Not on list of priorities	0
Don’t know	0

QC.1 In which of the following areas does your company use design?

Score 1 point for each of the following that are ticked	Score
Internally facing functions, such as workplace interior and internal communications	1
Externally facing functions, such as corporate communications, branding marketing and website	1
Product or process engineering	1
Research and development, including user or market research	1
New product or service development	1
Strategic planning	1

QC.2 Which of the following four statements most closely represents the role design plays in your company?

	Score
Design is integral to the company’s operation	5
Design has a significant role to play	4
Design has a limited role to play	1

Design has no role to play at all
Don't know

0
0

Score 1 point for each of the following that are ticked

QD.1 Which of the following applies to your company:

Score 1 point for each of the following that are ticked

Score

We have a dedicated design department
We employ internal designers (people whose main job is design)
We employ people who do design as a secondary part of their job
We employ external design consultant(s) on an ad hoc basis

1
1
1
1

If company has developed new products/services score the following

QE.2 How is design used in the development of new products/services?

Design is not used in the process
Design is used to a limited extent
Design is used in some specific stages of the process
Design is used in all stages of the process
Design leads and guides the whole process
Don't know

Score

1
2
3
4
5
0