Danish Innovation Index 2022
Annual Report

Consumer-based ranking of the most innovative firms in Denmark
Annual Report from Danish Innovation Index

March 2023

Lina Fogt Jacobsen
Darius-Aurel Frank
Helle Alsted Søndergaard

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AARHUS UNIVERSITY

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Data

Summary   DII measures consumers' perception of the innovativeness of industries and companies. In 2022, DII included 10 industries, covering approximately 40% of household spending. Each industry was represented by 3-4 companies, and the total number of companies studied in 2022 was 35. More than 2200 consumers evaluated a total of 35 companies, which received an average of 300 responses each (8,541 responses in total). Results indicate that when consumers perceive a company as innovative, they are more likely to find this company more attractive, and in turn are more likely to be loyal towards that company.

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Preface

The world's first consumer-based ranking of most innovative firms has come to Denmark.

Established in 2021, Danish Innovation Index (short: DII) takes a methodological approach to rank Danish firms in terms of innovativeness from the perspective of consumers.

The results, including the ranking of the most innovative Danish firms, are published on an annual basis and are announced at the annual Danish Innovation Index conference.

DII is affiliated to the world's first consumer-based ranking of most innovative companies, which started in Norway under the name Norwegian Innovative Index.

DII is supported by the Carlsberg Foundation.

1.0 Introduction

1.1/ Danish Innovation Index

The DII measures consumers perception of the innovativeness of industries and companies.

Because it is not possible to cover all companies on the Danish market, DII focuses on covering 70-80% of household spending, including both the largest companies in the industries but also smaller upcoming players.

In 2021, the focus of DII was on 6 industries, covering approximately 30% of household spending, with this coverage being increased yearly to reach 70-80% in 2025. Each industry is represented by 3-4 companies, and the total number of companies in 2021 was 22.

The index is measured through a representative survey of consumers in Denmark recruited from a consumer research panel by Norstat (https://norstat.dk/).

The sample of Danish consumers is representative based on gender, age and geographical location, and data is collected every quarter. Panel members identify from a list of companies the firms that they have done business with regularly during the last six months.

In 2022, more than 2200 consumers evaluated a total of 35 companies with an average of 300 responses per company (8,541 responses in total).

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2.0 DII Ranking

The ranking of the most innovative firms of 2022includes winners in two categories:

- overall innovativeness (Table 3), and
- artificial intelligence (AI) innovativeness (Table 4).

According to this ranking, the Top 10 most innovative firms in Denmark overall are Lego, Naturli', IKEA, Lunar Bank, Thise, Amazon, GoMore, Zalando, Jysk, and Netflix.

The Top 10 most innovative firms in the category of AI innovativeness are Zalando, GoMore, Netflix, HBO Nordic, DHL, Lunar Bank, Amazon, Bootz.com, TV2 Play, and Lego.

Table 3. DII 2022			Table 4. DII–AI 2022		
1	Lego	88	1	Zalando	69
2	Naturli'	76	2	GoMore	66
3	IKEA	76	3	Netflix	65
4	Lunar Bank	74	4	HBO Nordic	64
5	Thise	71	5	DHL	64
6	Amazon	71	6	Lunar Bank	64
7	GoMore	68	7	Amazon	63
8	Zalando	68	8	Bootz.com	63
9	Jysk	67	9	TV2 Play	63
10	Netflix	67	10	Lego	63
11	Nemlig.com	66	11	IKEA	62
12	Arla	64	12	GLS	62
13	3 Danmark	64	13	Viaplay	62
14	Flixbus	63	14	Telia	61
15	Bootz.com	63	15	Nykredit	61
16	Rema 1000	62	16	3 Danmark	61
17	Danish Crown	62	17	Nemlig.com	61
18	Nykredeit	61	18	Flixbus	60
19	HBO Nordic	61	19	Kombardo Expressen	60
20	Kombardo Expressen	60	20	Bring	60
21	ILVA	60	21	Postnord	59
22	TV2 Play	60	22	Jysk	58
23	GLS	60	23	Super Brugsen	58	-
24	Super Brugsen	59	24	DSB	58
25	Telia	59	25	ILVA	57
26	ViaPlay	58	26	Rema 1000	56
27	Yousee	58	27	Danske Bank	56
28	Danske Bank	58	28	Netto	55
29	Telenor	57	29	Telenor	55
30	DHL	56	30	YouSee	54
31	Jyske Bank	56	31	Jyske Bank	54
32	Netto	55	32	Thise	52
33	DSB	53	33	Arla	52
34	Bring	53	34	Danish Crown	51
35	Postnord	52	35	Naturli	49

3.0 Data Analysis

In this section, we report more details about the data analyses carried out for year 2022.
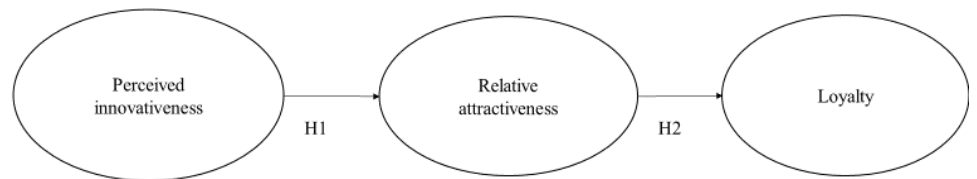
3.1/   Hypotheses

In addition to the ranking, a total of two hypotheses were tested:

H1: Perceived innovativeness is positively related to relative attractiveness. and
H2: Relative attractiveness is positively related to loyalty.

Figure 1 shows the overall model tested as a structural equation model.

Figure 1. Hypothesized relationships

3.2/   Measurement model

The measurement model (based on a confirmatory factor analysis) and path model are conducted in Mplus8.7 (Muthén & Muthén, 2021). Measures are based on scales from prior literature (Andreassen & Olsen, 2008; Kunz et al., 2011; Olsen & Johnson, 2003; Zeithaml et al., 1996), and are treated as multi-item constructs, measured on 7-point scales. The measurement model (Table 1) confirms that all factor loadings are acceptable (Hair et al., 2010).

Table 1. Measurement model with overview of multi-item constructs

Constructs and items	Factor loadings	p-value
Perceived innovativeness		
X changes the markets with its offerings	.766	.000
X is a very creative company	.941	.000
X is a pioneer in its category	.944	.000
X is an innovative company	.463	.000
Relative attractiveness		
Does X have better prices than other similar companies?	.844	.000
Does X provide products and services of better quality, compared to other companies?	.848	.000
Does X have better reputation than other similar companies?	.892	.000
Is X more attractive than other similar companies?	.742	.000
Customer loyalty		
How likely or unlikely is it that you will continue being a customer of X?	.907	.000
How likely or unlikely is it that you will recommend X to someone who seeks your advice?	.869	.000
How likely or unlikely is it that you say positive things about X to other people?	.922	.000

3.3/ Path model and hypotheses testing

Based on the results, the suggested relationships are significant, which means that H1 and H2 are supported by the data (Table 2).

Table 2. Analysis of path model

Paths		Beta-values
Perceived innovativeness → relative attractiveness	.698***	
Relative attractiveness → customer loyalty	.801***	

*** p-value < .0001

Specifically, this means that when consumers perceive a company as innovative, they are more likely to find this company more attractive than other companies. Moreover, when consumers find the company relatively attractive, they are more loyal towards that company.

Figures 2 and 3 show the separate relationships between perceived innovativeness and relative attractiveness of the brand as well as relative attractiveness and loyalty.

Figure 2. Relationship between perceived innovativeness and relative attractiveness (based on simple linear regression conducted in SPSS28)
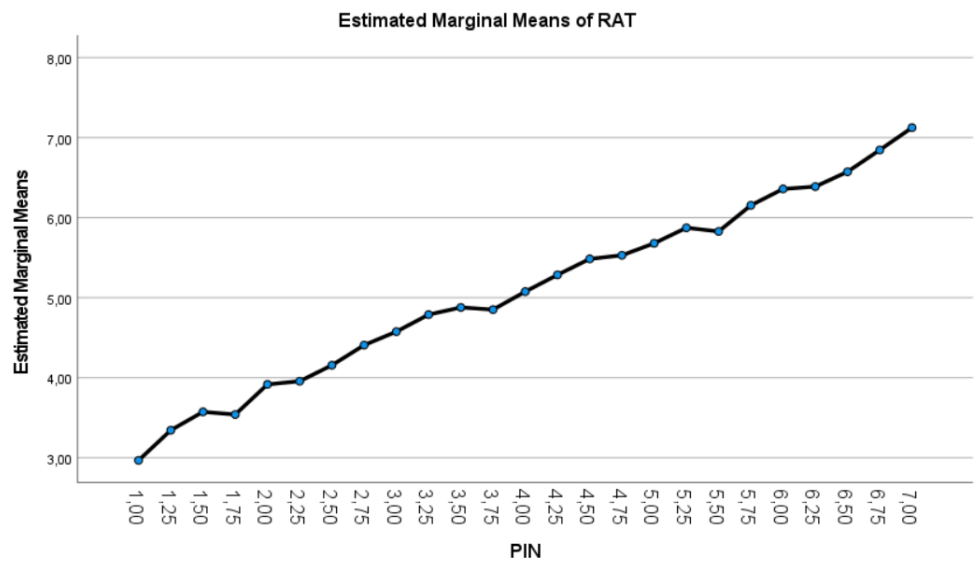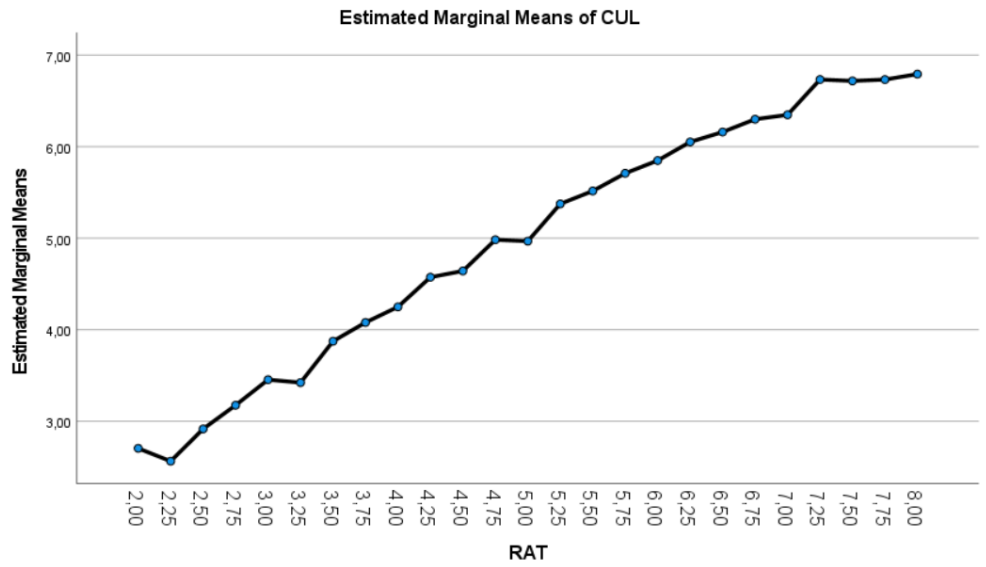
Figure 3. Relationship between relative attractiveness and customer loyalty (based on simple linear regression conducted in SPSS28)

Estimated Marginal Means of CUL

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