

The Return on social intervention in family welfare customer life cycle



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Model to motivate



The Challenge

1. Increasingly unfavourable dependency ratio.
2. Siloed and fragmented welfare services.
3. Little knowledge of cost generation.
4. Resources allocated to late phase remedial services.

The Solution

1. Improve cost efficiency in resource allocation.
2. Approach welfare services from a system level.
3. Analyse and model cost generation.
4. Motivate earlier and cost effective interventions.

Model to motivate!



Presentation Outline

1. Background
2. Research
 - *Aim of the study*
 - *Method and data*
 - *Modelling*
3. Conclusions

- *Unemployment*
- *Problems with livelihood*
- *Serious illness*
- *Parenting deficit*
- *Divorce*
- *Substance abuse*
- *Mental problem*
- *Marginalization*
- *Education deficit*

9 challenging situations in life

325 families

10 categories of welfare services

- *Child welfare*
- *Family counselling*
- *Family and home help services*
- *Remedial youth work*
- *Services for the disabled*
- *Social work*
- *Mental health services*
- *Substance abuse services*
- *Health services*
- *Remedial and special education*

Aim of the study



The aim of the study

An explorative study aiming to induce structures explaining and predicting the cost generation in family welfare services in the City of Varkaus.

Research questions

1. How do the families differ in their use of welfare services?
2. Are there any conventionalities explaining the differences?
3. If there are conventionalities, **how could they be used (A) to segment customer groups, (B) to target interventions, and (C) to calculate the return on social intervention.**

Research method and data



Method

- Survey research conducted September 2015 in the City of Varkaus.
- Correlation and cluster analyses were used to explore the research questions.

Data

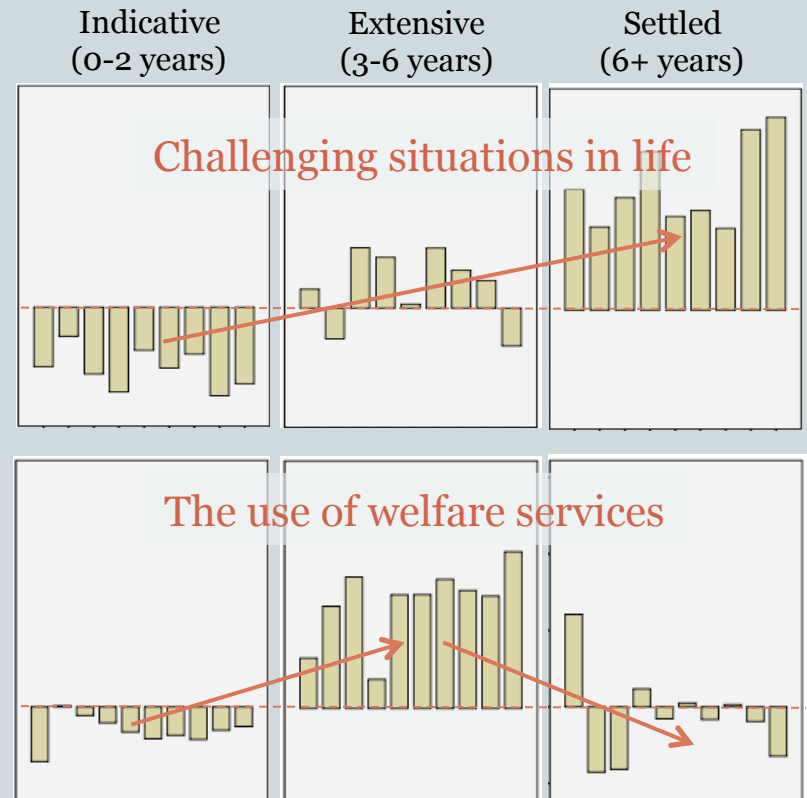
- Random sample of 325 families using at least one of the welfare services.
- The surveyed categorical data explored:
 - The use of 33 social, educational, and health services.
 - The presence of 9 different challenging situations in life.
 - The length of the use of welfare services in years.

Induced customer groups

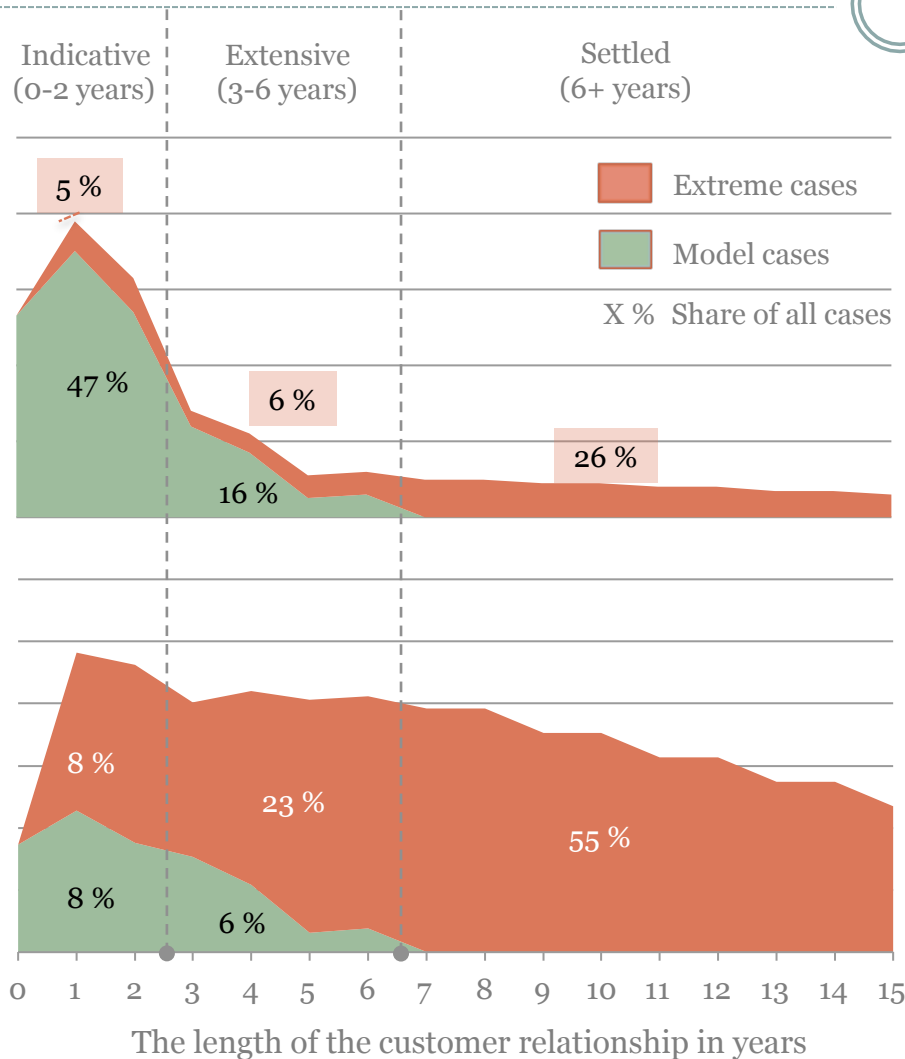
K-Means clustering

| | Cluster 1 “Indicative” | Cluster 2 “Extensive” | Cluster 3 “Settled” |
|--|---------------------------|--------------------------|------------------------|
| The length of the customer relationship in years | $0 \leq x \leq 2$ | $2 < x \leq 6$ | $x > 6$ |
| Average number of services | 1.9 | 5.4 | 2.9 |
| Number of families | 188 | 51 | 85 |
| The share of families | .58 | .16 | .26 |

Profiling clusters



The structure of the customer base



The number of extreme and model cases.

The total costs generated by the extreme and the model cases.

Customer segments



The level of the total costs

Extreme cases

Segment 2
5 % of customers
8 % of costs
16 000 € per year

Segment 4
6 % of customers
23 % of costs
31 500 € per year

Segment 5
26 % of customers
55 % of costs
19 600 € per year

Model cases

Segment 1
47 % of customers
8 % of costs
1 600 € per year

Segment 3
16 % of customers
6 % of costs
3 100 € per year

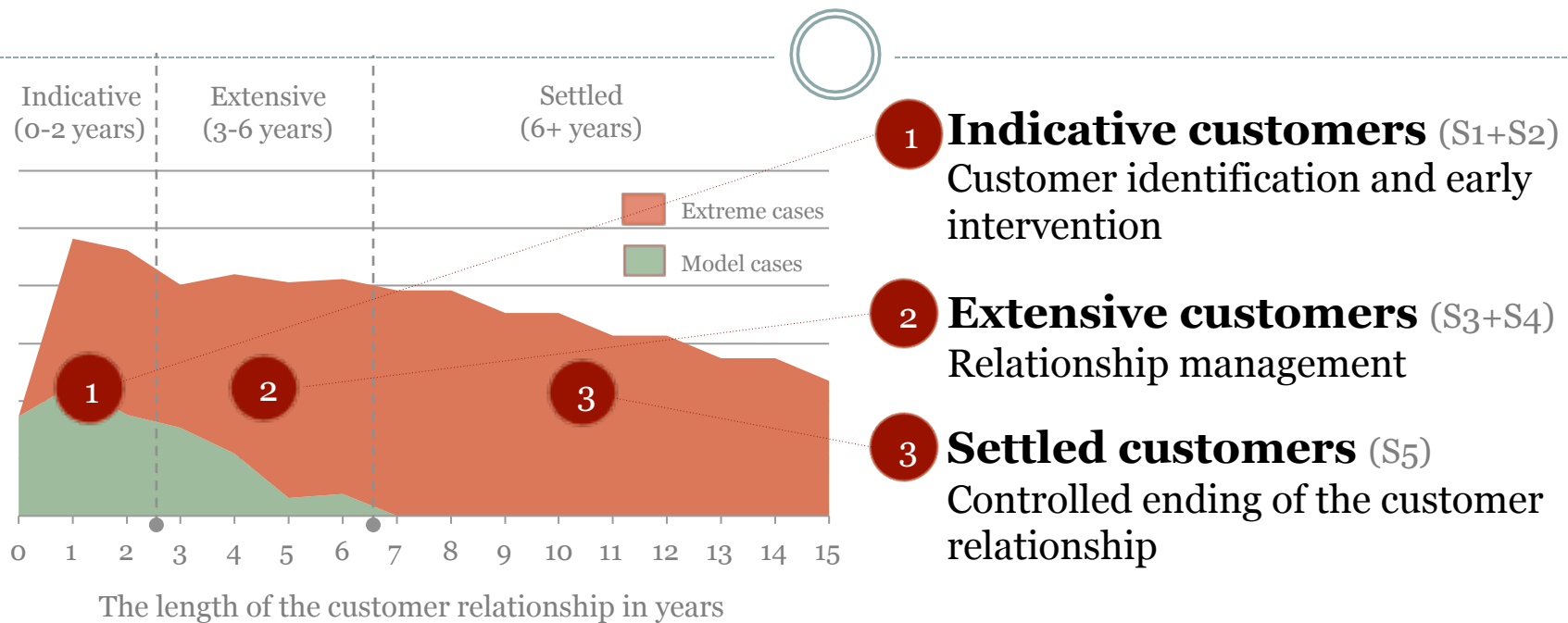
Indicative (0-2 years)

Extensive (3-6 years)

Settled (6+ years)

The length of the customer relationship

Intervention points, themes, and objectives



The objective of the interventions is **to minimize the total value of the customer base** on both the medium and the long term basis. This is done by **(1) reducing the total costs** of services used by targeted customers and by **(2) shortening the length** of the customer relationship.

Modelling the return on social intervention 1/2



Phase 1

Create the intervention

1. Create intervention service concept.
2. Estimate intervention unit costs.
3. Set intervention objectives.
4. Decide the level of interventions.
5. Target interventions to customer segments.

Example

Family coach service concept

1. Family coach service concept.
2. 2 300 € per coach per year.
3. 10 % of yearly cost reductions and shortened length of the customer relationship in 20 % of the cases.
4. 15 family coaches working with 300 families in a 10 year time period.
5. Family coaches are allocated to work with 120 (40 %) indicative, 120 extensive (40 %), and 60 (20 %) settled target families.

Modelling the return on social intervention 2/2

Phase 2

Calculate the impact

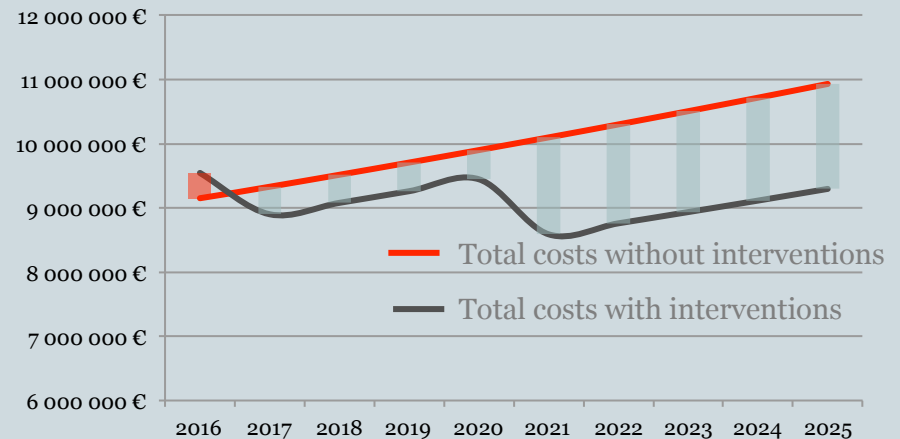
6. Calculate and illustrate, how the interventions affect the value of the customer base.
7. Calculate the return on social intervention (ROSI).

Return on social intervention (ROSI) =
(cost savings from targeted interventions
– cost of interventions) /
cost of interventions

Example

Family coach service concept

6. Projections of yearly savings from targeted interventions (€)



7. $ROSI_{1\text{ year}} = -112\%$
 $ROSI_{5\text{ years}} = 42\%$
 $ROSI_{10\text{ years}} = 126\%$

Conclusions



- This study presents a new approach to analyzing, modeling, and calculating the return on social intervention (ROSI).
- The results from this study can be used to
 - analyze and model welfare service cost generation from a customer life cycle perspective.
 - predict how social interventions impact the total value of the customer base over time.
 - motivate welfare promotion and early intervention.
- This research contributes theoretically to service system, market segmentation, and social marketing research areas.



Thank you for your
attention.

Questions?

**Model
&
Motivate**