

Payday effect - Does getting paid increase people's propensity to enter long-term contracts?

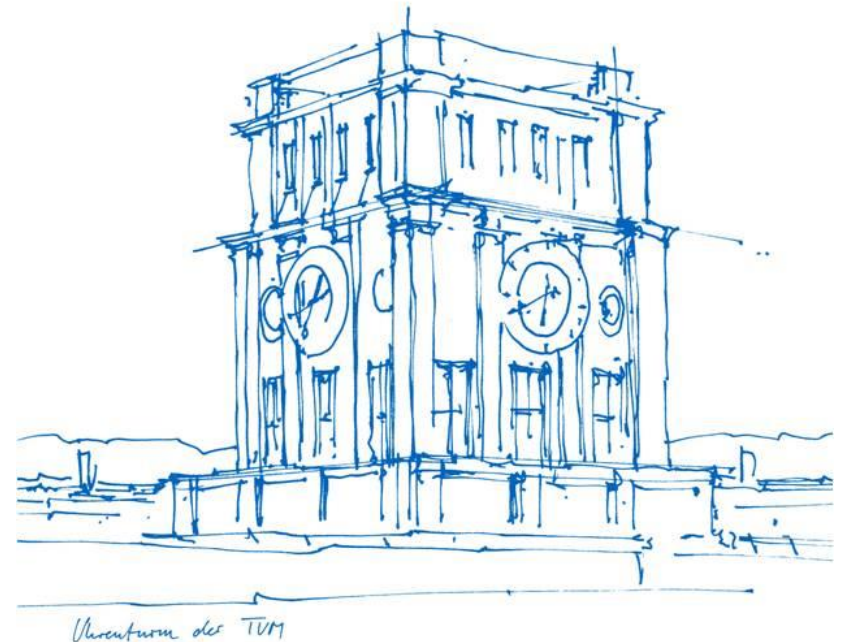
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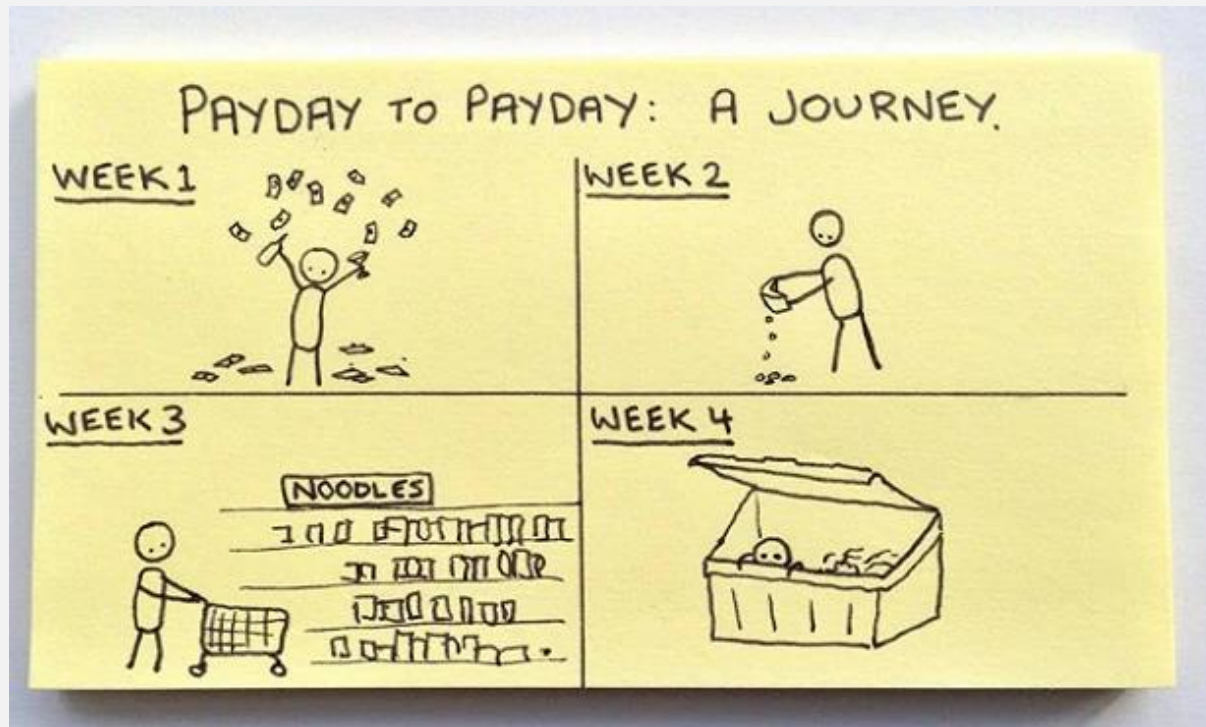
Chair of Corporate Management

Berlin, Germany, 29.10.2021



Motivation: Payday

Payday-Effect



Source: instachaz¹

Motivation: Payday and Commitments

Literature Payday-Effect

Prior research results:

- **Decreasing** spending behavior **between paydays**²
- **More is bought**³ and at **higher prices**⁴
- Higher payday effect at **young** and **less wealthy** consumers⁵

But:

- Research is very **focused** in analyzing how the payday influences **instant consumption goods** (like go out for dinner or ready-made food)⁶
- **Research missing** for the payday effect on **commitments** like mobile phone contracts or credit contracts

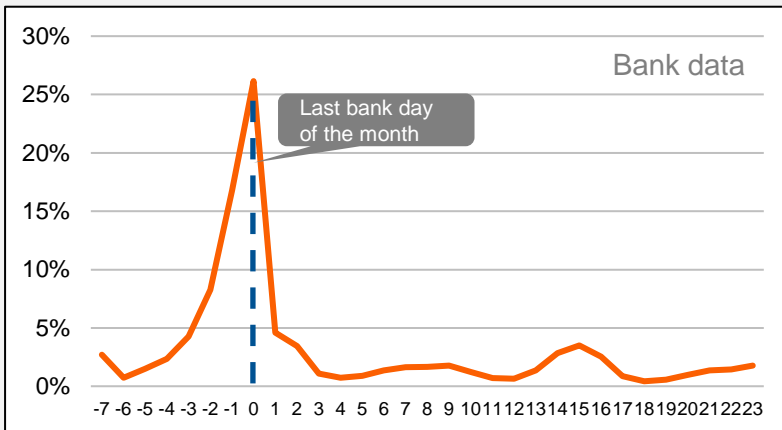
▶ Research question: Willingness for entering long-term contracts increased by payday?

Outline:

1. **14% more** agreements on payday and **22% more** on the second day after payday (overall)
2. For the **age of 20**, the **demand increases** by **+45%**, the payday effect **decreases with age**, but is **positive** for **all ages**
3. **Young men** have a **stronger payday** effect, this effect **decreases stronger** for **men** so that **women over 40** are more **impulsive**
4. **Low-priced** products **increase** significantly even **ahead of payday** (very price sensitive customers)
5. Payday effect is **strongest** in **physical retail** (vs. e-commerce, hotline)

Method:

1 Identification of payday



- **Payday** = “*change in liquidity*”⁷
- **26,1%** of Germans receive salary at the **last bank day** of the month (58% within last 5 days)
- **9%** of Germans receive at the **mid of month** the salary (15th ± 1 day)

2 Investigation of payday

Using field **data** from **telco**:

- **Number of mobile contracts** sold per day
- **Number of financing mobile phones** per day
- **15 million** contracts
- Including **gender, age, sales channel, brand**
- Data is from **2016 to 2019**
- Different **commitment durations** (1/24 month)

Model:

Linear Regression Model

$$\log(x_t) = \alpha + \sum_{j=-4}^4 \beta_j I + \text{fixed effects} + \varepsilon_t$$

x_t : Number of products sold at day t

β_j : relative coefficients, measuring the fraction by which contracts are made deviate from average daily sales

I : Dummy variable for payday

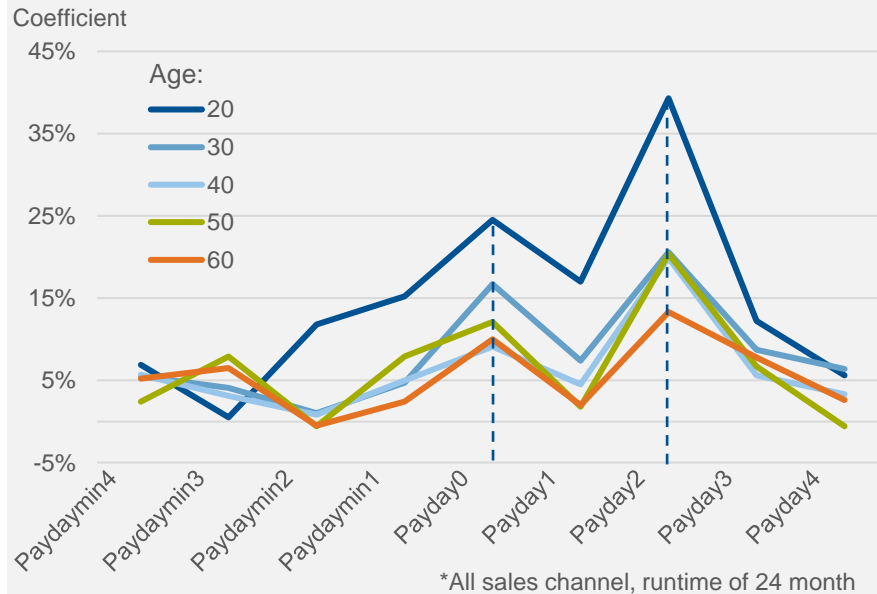
Fixed effects include:

- Day of week
- Month
- Long-term estimator
- Holidays

Model based on Olafson and Pagel 2018³

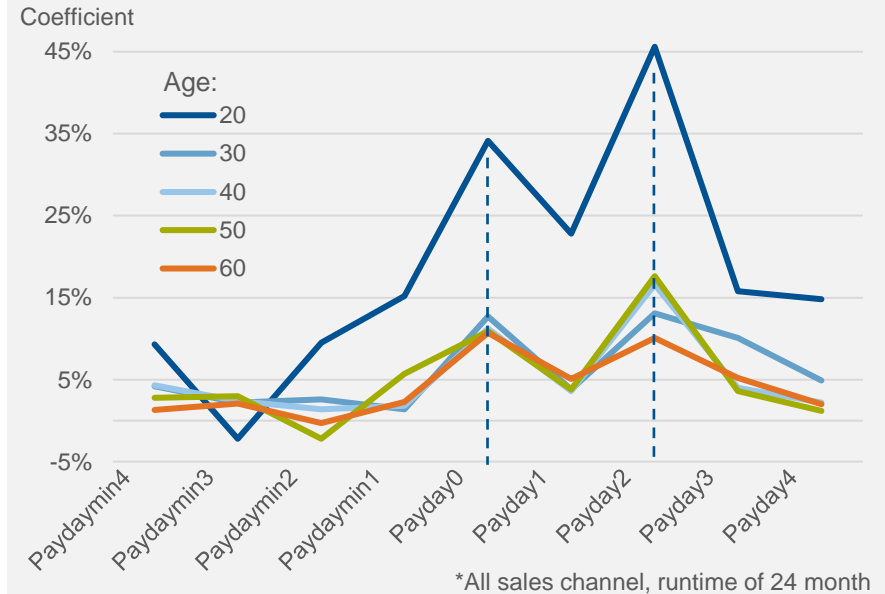
Results: Increased commitments age/gender

Female sales coefficients



- Payday effect **decreases** with **age**
- **Women** have a **higher payday** effect from **40** onwards (compared to men)

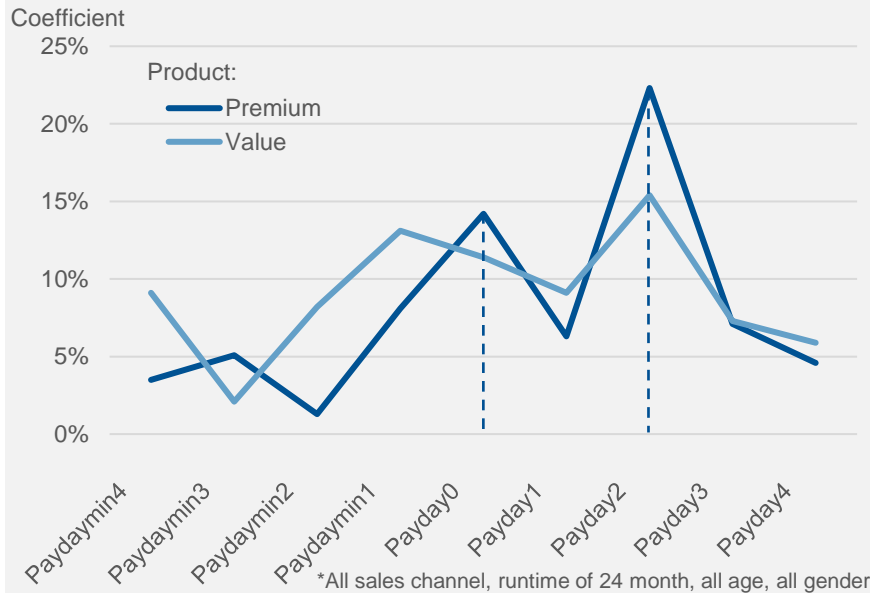
Male sales coefficients



- **Young males** has **highest payday** effect
- High peak at the **second day** after payday (consumption pattern due to payday)

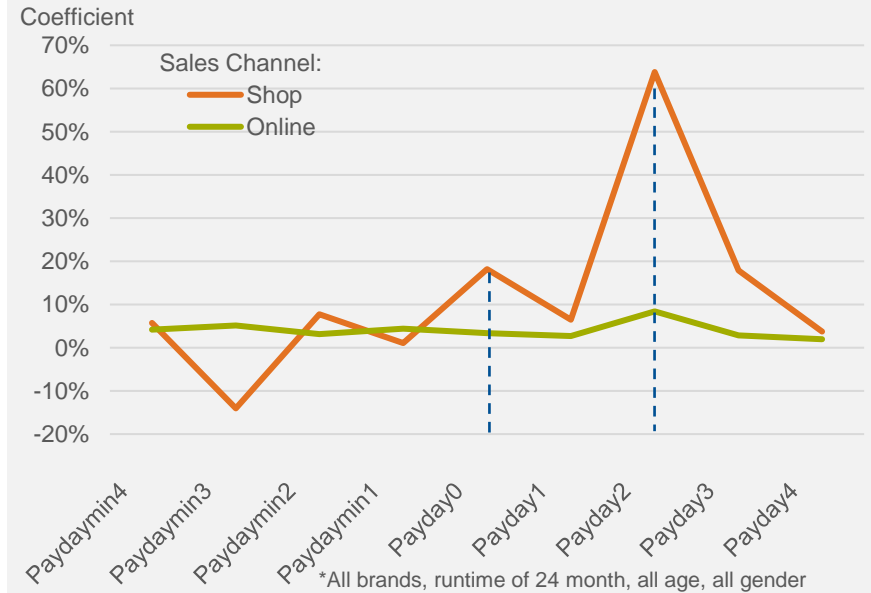
Results: Increased commitments prices/channels

Value vs. premium



- **Value** (lower price) brand increases **earlier**
- **Premium** (higher price) has higher peaks

Sales Channels



- **Physical store** strongest effect with **64%**
- **Online** with **significant payday (+8% two days after payday)** but weaker than in store

Possible explanations:

Explanations

- **Liquidity/Credit constraint:** Customers do not have to pay anything at signing⁸
- **Self control problems:** Impatience and the possibility to buy⁹
- **Financial literacy:** literature could be shown as an influencing factor¹⁰
- **Quasi-hyperbolic discounting:** Resources in the future are value decreasingly with the time horizon¹¹
- **Heuristics:** Rule of thumb¹², mental accounting²
- **Feelings:** “full wallets”¹³

▶ Most meaningful explanation is discounting of future income and a mix of feelings

Contribution:

Literatur

Better understanding of payday effect:

- **Not only instant consumption is increased, also commitments**
- **Young male are more impulsive**
- **Females has more constant impulsive behavior**

Management

Social:

- Behavior can **not show** at weekly paid workers → **shorter salary cycles⁵**

Company:

- Reactive: Be **able** to **satisfy** the **demand** volatility (planning)
- Proactive: Actively address customers on payday to **promote** the **buying mood**

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