Guest presentation:

LogPay Financial Services GmbH

Goethe Universität Frankfurt am Main,

Mobile Business 2

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Agenda

1. Introducing LogPay Financial Services GmbH - Payment Service Provider

2. How LogPay managed the Corona Lockdown as mid-size Company?

3. How does the Corona Pandemic change Public Transport?

4. Industry 4.0 - the new Life Elixir of Companies today & tomorrow

5. Payment today and tomorrow

6. IoT & Online Payment & Mobility Services got you interested?

1. Introducing LogPay – Payment Service Provider (PSP)

LogPay is a PSP & Fuel & Charging Card Issuer focussed on the European Transport and Mobility Market

Volkswagen AG, based in Wolfsburg, Lower Saxony, is a German automobile manufacturer. It is indirectly majority-owned by the Austrian Porsche and Piech families. The State of Lower Saxony holds a 20% share.

> 100% ↓

VW Financial Group

VOLKSWAGEN FINANCIAL SERVICES
AKTIENGESELLSCHAFT

VW FS AG operates and coordinates the financial services activities of the Volkswagen Group, i.e. Leasing and customized services.

100% ↓

LOG PAY
Financial Services

Leading payment service provider and factoring institution in the German transport market, especially in land transport, i.e rail.

100%

LOG PAY
Transport Services

Fuel and service card company active in the European transport market, especially for hauliers and logistic companies.

100%

LOG PAY
Mobility Services

Mobility Services Company active in the German & Austrian market, especially for public transport operators and multimodal platform providers.

Brands of LogPay provide Services to B2B and B2C Customers

LOGPAY
Mobility Services

LOGPAY
Financial Services

- Factoring
- Collecting Payment Services
- Risk Management
- Receivables Management

LOGPAY
Mobility Services

- Mobile phone ticket
- Online ticket
- Jobticket
- Terminal ticket
- Mobile Parking Fees
- Charging & Fueling

LOGPAY
Transport Services

- Rail- & combined transport fees
- Tolling Services within EU
- Fuel & Charging Card Services within EU
- Breakdown service, VAT & mineral oil tax refund
- Exhaust Fume badgets

MOBILITY

TRANSPORT & LOGISTICS

2. How LogPay managed the Corona Lockdown as mid-size Company

Picture: Banksy, Child with nurse as superhero

Finding a Balance between Home and Office Work - I

- ➢ Evaluation of potential risk at the time of strong lock-down measures in Germany
  - ➢ Staff infected?
  - ➢ Staff potential risk to be infected?
  - ➢ Protection measures?
- ➢ Everyone going into Home Office at the same time would lead to negative impact on all business areas but one business area "fueling & charging" would be affected most
- ➢ Further digitalisation of work flow – possible but time consuming
  - • selection of service provider;
  - • price negotiation;
  - • contractual agreement and technical interface

  -> mission impossible within 10 days
- ➢ Solution: Selected staff for home office and further digitalize -> "Two leg approach"

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Finding a Balance between Home and Office Work - II

Actions

- Introduction of hygienic company rules and set-up of specific measures (toilette, office cleaning, lunch, etc.)

- Within a 10 days all staff were able to work from home using a mix of office and home equipment

- Rotation of staff to minimise potential infections

- Each office no more than 1 person at work location

- Communication via conference calls (i.e. MS Teams)

Finding a Balance between Home and Office Work – III

Learnings

- Gaps of digitalisation, i.e. fuel card production, postal services (contracts documents), internal paper oriented procedures

- Increase of coordination time – Conf Call Pandemic - due to less personal exchange

Virtual Communication increased within one Week up to 50%* at Frankfurt-Data-Hub, Germany

* Source: DE-CIX Knoten

Conference Calls instead of Personal Meetings?

Picture:
Father in the home office with child at the desk

Picture: Man in home office on a video conference

Microsofts Company-Chat-App Teams did already overtake competitors Slack and Google Hangouts in their market share – 41% of companies in 2020 are said to be using Microsoft Teams according to a study of Spiceworks (900 IT companies in US and Europe participated in this study)*.

Picture: Man in home office on the sofa

Source: t3n digital pionieers

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3. How does the Corona Pandemic change Public Transport?

Picture: Banksy, Person balances on heartbeat line

Effects of the Corona Pandemic on Public Transport in Germany

- 85% decrease in the number of passengers

- However, in order to maintain a basic service, companies continue to run up to 75 percent of their regular timetable

- Loss of € 5 billion by the end of the year in the public transport industry (current estimates by the Association of German Transport Companies (VDV))

Loss of Revenues, more Costs and Need of Investment

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Coronavirus: Hygiene- und Verhaltensregeln in Bus und Bahn

Coronavirus: Face masks included in new public transport rules for Scotland

Picture: Woman with mask in the bus

Die Corona-Krise trifft den ÖPNV: Voller Fahrplan bei einem Minimum an Passagieren.

ÖPNV IN DER CORONA-KRISE

Ruf nach Rettungsschirm für Bus und Bahn

Picture: People with masks in the subway

Coronavirus: London transport 'may run out of money by end of month'

**Die ÖPNV-Nutzung ist in vielen Städten um 70 bis 90 Prozent eingebrochen.**

Public transport changes in response to coronavirus

Increase of contactless Payments and e-Tickets via Smartphone

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Picture:
Man with detergent, disinfectant on the train

Picture:
Ticket is stamped by a person

Picture:
Poster from public transport "Your protection protects us all"

Connecting all Modes in one Platform for urban & regional Mobility
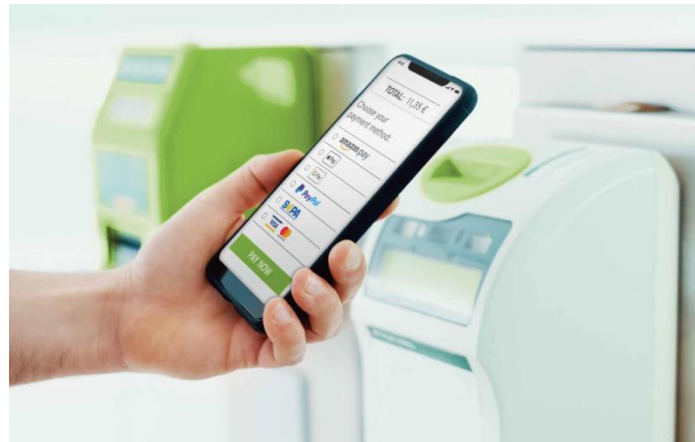
4. Industry 4.0 - the new Life Elixir of Companies today & tomorrow

Picture: Banksy, A security camera films the slogan: „What are you looking at?" on a wall

Increased Investments in Networks and digital Infrastructures for 4.0

- After the steam engine, diligence belt and computer, the global economy is currently reinventing itself. People, machines and industrial processes are combining to form intelligent networks. In the Internet of Things (IoT), devices, systems and sensors communicate continuously with each other. The fuel of the fourth industrial revolution is provided by data streams that are available at all times in digital clouds.

- The economic potential is huge. German industry plans to invest 40 billion euros in industry 4.0 applications in 2020.

Source: BMWi

Industry 4.0 - I

- First focus: Creating networks of means of production via cyber-physical systems

- Now: all areas of business use the suffix 4.0 as symbol of integration of digitalisation in different business areas

- Reason 1: Reduction of costs for powerful sensoric, low-energy transmitting technology allow for battery-operating solutions

- Example: pay-per-use

- Reason 2: Increasing server capacities and cloud-based data warehouses

- Example: Amazon cloud services for companies

- Advantages: new business-models through AI-developments & autonomous networks
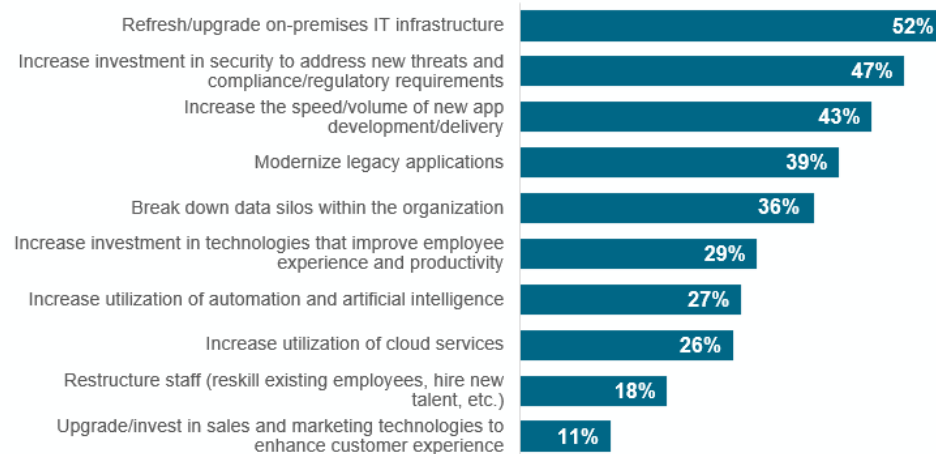
Industry 4.0 - II

What does this mean for LogPay – example "hauliers (truck) & logistic companies"

➤ further digitalisation of onboarding processes for B2B customers with internal decision taking processes for a 24/7 services

➤ connecting different system components to enhance the existing IT infrastructure with dynamic customer data

- Acquisition of potential customers -> CRM system connecting to different system components of LogPay system

- Risk evaluation of company data & check of creditworthiness -> internal and external system components and intelligent human machine interface

- Digitalisation of contract processes -> eSignature provider connected to LogPay own system component & high-level qualified customer care service

- E-Invoicing -> adapting and upgrading existing IT system according to country specific tax rules

- Monitoring of customer lifecycle -> enhanced CRM system

- Controlling of financial risks through customers contract life with LogPay -> Alert system

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In order to boost Digitalisation Data Warehouse & Security is Key

Digital Transformation Investments

Which of these activities are you implementing to support digital transformation in 2020? (Choose all that apply)
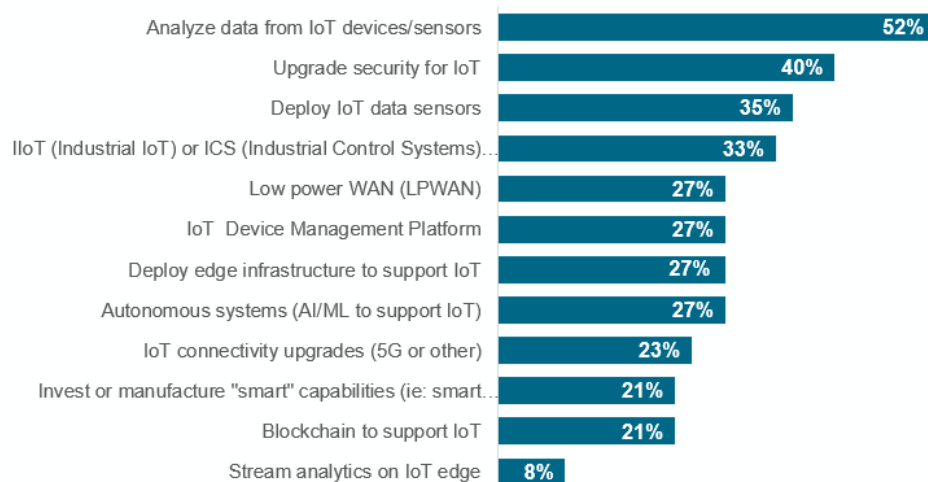
Activity	%
Refresh/upgrade on-premises IT infrastructure	52%
Increase investment in security to address new threats and compliance/regulatory requirements	47%
Increase the speed/volume of new app development/delivery	43%
Modernize legacy applications	39%
Break down data silos within the organization	36%
Increase investment in technologies that improve employee experience and productivity	29%
Increase utilization of automation and artificial intelligence	27%
Increase utilization of cloud services	26%
Restructure staff (reskill existing employees, hire new talent, etc.)	18%
Upgrade/invest in sales and marketing technologies to enhance customer experience	11%

Observations

Employee Experience investment theme carries through to many technologies for 2020

On-premises gets boost during digital transformation

Source: 2020 IT Priorities (DACH) n=106

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Doing more with Data collected from various Devices

IoT

Which of these Internet of Things (IoT) related technologies or initiatives do you plan to implement in 2020? (Choose all that apply)

Initiative	Percentage
Analyze data from IoT devices/sensors	52%
Upgrade security for IoT	40%
Deploy IoT data sensors	35%
IIoT (Industrial IoT) or ICS (Industrial Control Systems)...	33%
Low power WAN (LPWAN)	27%
IoT Device Management Platform	27%
Deploy edge infrastructure to support IoT	27%
Autonomous systems (AI/ML to support IoT)	27%
IoT connectivity upgrades (5G or other)	23%
Invest or manufacture "smart" capabilities (ie: smart...	21%
Blockchain to support IoT	21%
Stream analytics on IoT edge	8%

Observations

IT is planning large investments in security upgrades and connectivity

Edge infrastructure projects heating up in 2020

AI/ML investments looking strong

Source: 2020 IT Priorities (EMEA) n=737

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Where and how do we produce Personal Data

Picture: Icons about Internet of Things

- Source Chip.de: Amazon stores all data unlimited, which you provide using online-shop: payment data, adress and orders. On top Amazon for example: which product you look at, what are you selecting and what you are searching
- Even more data is collected when using Alexa: each word spoken or written is stores as Audio-Datei or as text.
- If you register and accept terms & conditions you agree – if you do not like than do not us Amazon

amazon.com

?

amazon pay

Picture: ‚Alexa'

Picture: Smart Home controlled via the smart phone

How can this Data be used

- Creation of user profiles -> online marketing/target marketing/customized marketing

- Combination of data/Data collecting -> 'Data are the new gold'

- Know your customer -> 'Knowledge is power'

- Date privacy -> data protection & data security

- Possible data mining: tracking, evaluation of behaviours (search for products), preferred payment methods, etc.
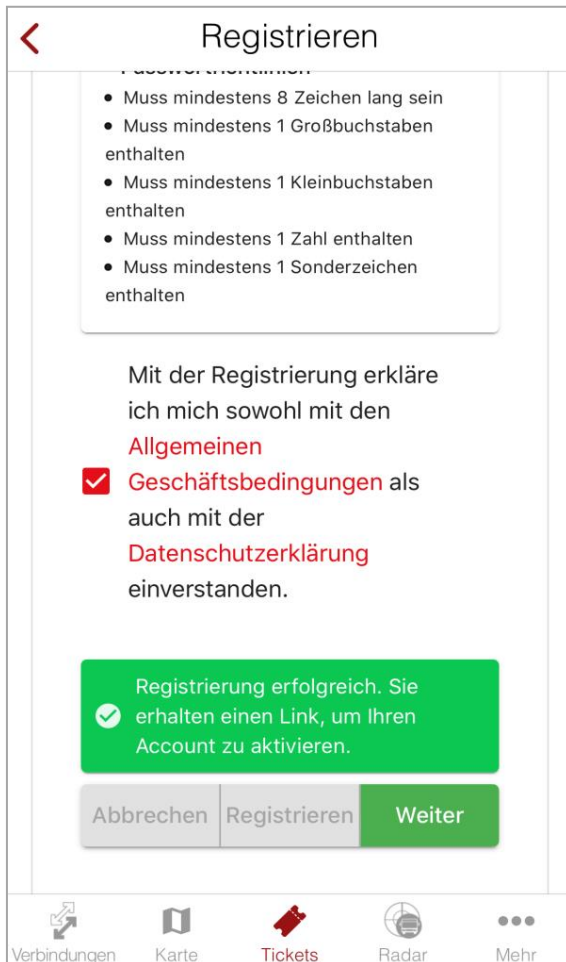
Do you read the Terms & Conditions when you use an App?

How often do you read the terms and conditions of
Online Shops? (always / mostly / sometimes / rarely / never)
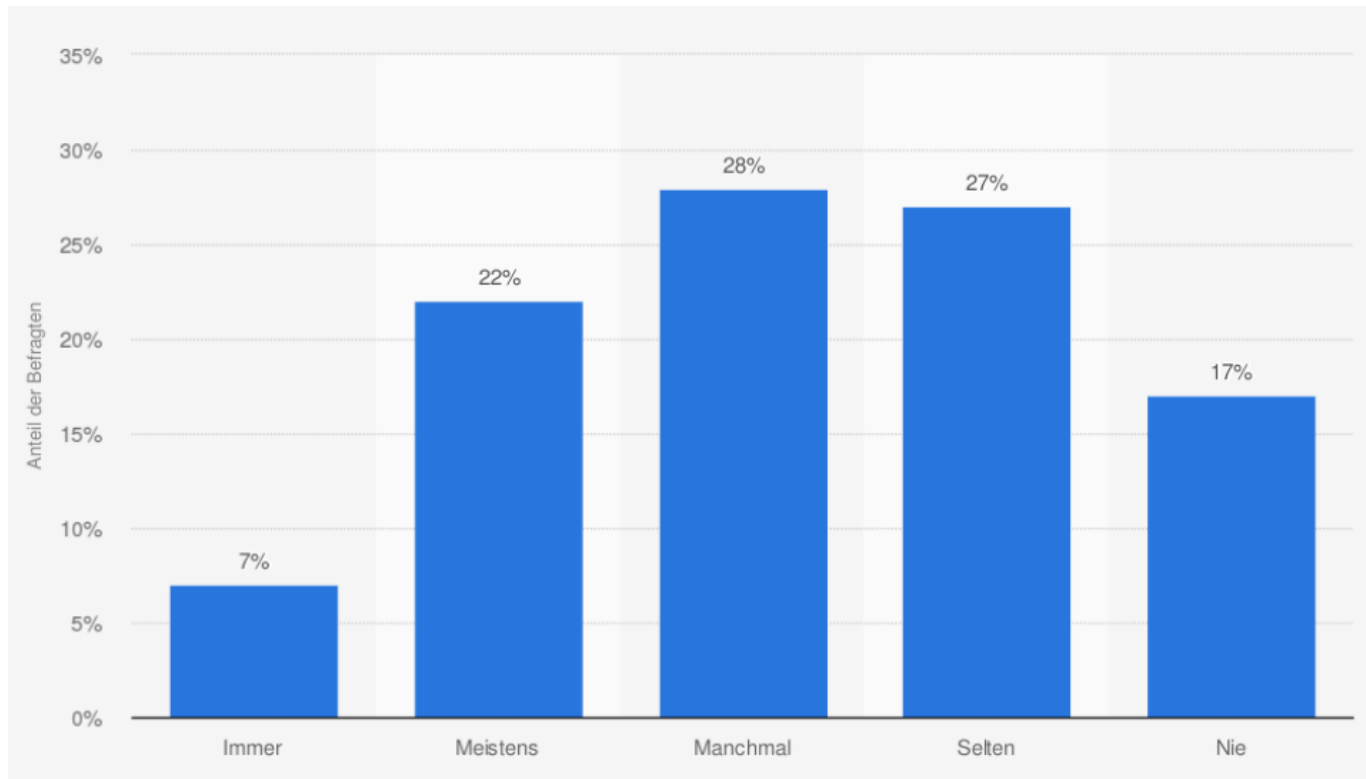
Source: Statista, 2017
896 respondents, who buy
at least occasionally on the
Internet.

General Terms and Conditions – check Trustworthiness & Company Background & Location


Examples from public transport apps

5. Payment today and tomorrow

Picture: Banksy, Person with cut up dollar bill

Paying Online

- In Germany Online payment will be growing by 17% each year from 2020 to 2024.

- 3.46 Billions of payment transactions were processed by PayPal in the fourth quarter of 2019. In 2010 there were only 340 millions.

- In public transport about 25% are using Apps or Online Shops to purchase their transport ticket:
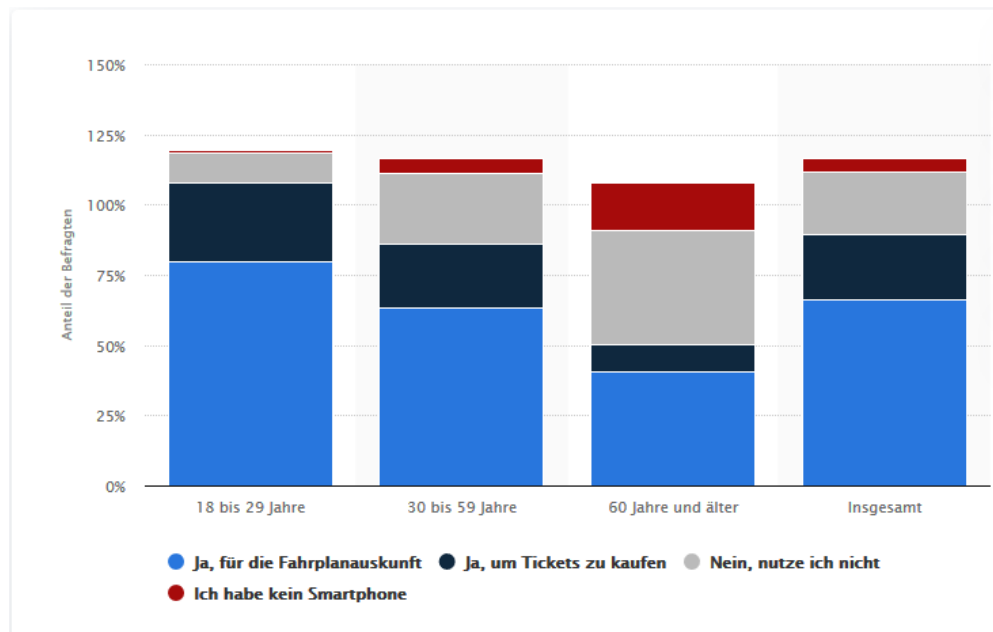
Source: Statista/PayPal

Mobile Wallet – Definition

Mobile Payment -> phone provider solution „MNO Billing or carrier billing"– less common as payment method in Germany

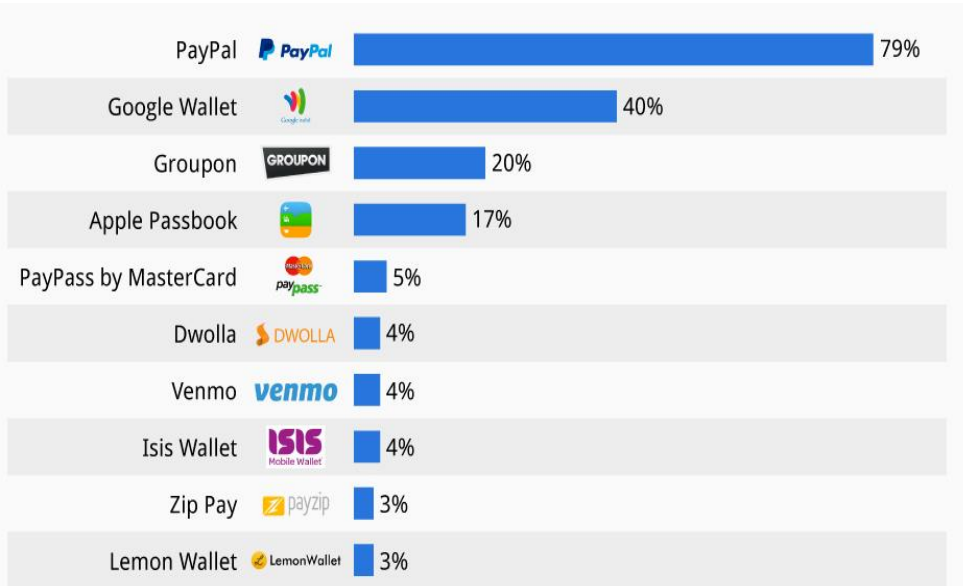Mobile Wallet -> increasing usage: Apple Pay and Google Pay

-> A mobile wallet is a virtual wallet that stores payment card information on a mobile device. Mobile wallets are a convenient way for a user to make in-store payments and can be used at merchants listed with the mobile wallet service provider.

The mobile wallet is an app that can be installed on a smartphone or it is an existing built-in feature of a smartphone. A mobile wallet stores credit card, debit card, coupons, or reward cards information.

Once the app is installed and the user inputs payment information, the wallet stores this information by linking a personal identification format such as a number or key, QR code or an image of the owner to each card that is stored.
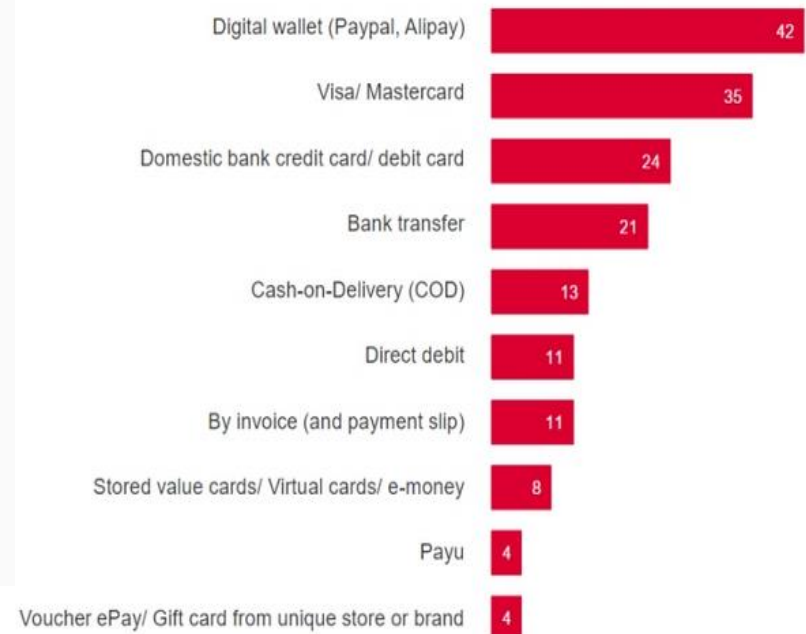
Different Payment Methods – different Customer Preferences

Competition among wallet payment methods (percentages; respondents in the USA who used the following mobile payment services)

Service	Percentage
PayPal	79%
Google Wallet	40%
Groupon	20%
Apple Passbook	17%
PayPass by MasterCard	5%
Dwolla	4%
Venmo	4%
Isis Wallet	4%
Zip Pay	3%
Lemon Wallet	3%

Europeans' most popular payment methods for online purchases (in percent)

Method	Percent
Digital wallet (Paypal, Alipay)	42
Visa/ Mastercard	35
Domestic bank credit card/ debit card	24
Bank transfer	21
Cash-on-Delivery (COD)	13
Direct debit	11
By invoice (and payment slip)	11
Stored value cards/ Virtual cards/ e-money	8
Payu	4
Voucher ePay/ Gift card from unique store or brand	4

Source: https://www.statista.com/chart/2534/mobile-payment-usage-in-the-us/

Source: Ecommerce News europe, https://ecommercenews.eu/online-payment-methods-europe/

How do the Germans pay Online?

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in Prozent

1,9 1,8 0,9 3,0
3,8
4,5
5,4
10,7
19,7
20,5
27,9

- ■ Rechnung
- ■ Paypal
- ■ Lastschrift
- ■ Kreditkarten
- ■ Ratenkauf/Finanzierung
- ■ Vorkasse
- ■ Zahlung bei Abholung
- ■ Sofortüberweisung
- ■ Nachnahme
- ■ Bezahlen mit Amazon
- ■ Sonstige**
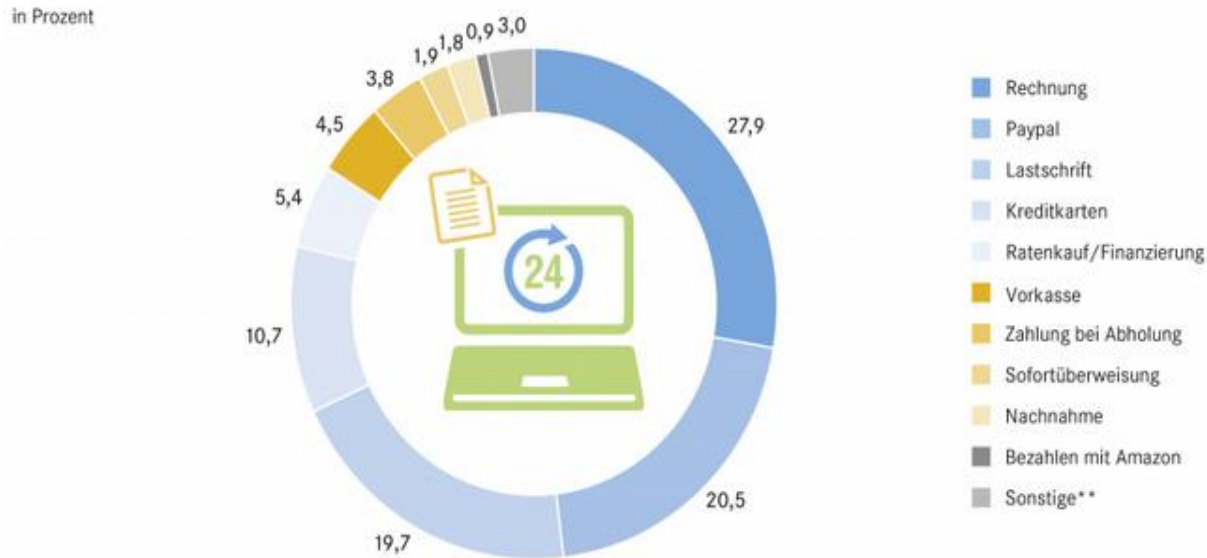
* Top-1.000 Onlineshops laut Studie E-Commerce-Markt Deutschland 2018, EHI/Statista: 42,8 Mrd. Euro
** Sonstige: Debitkarte, Giropay, Paydirekt, Masterpass, Barzahlen.de, Kundenkarte, Geschenkkarte, Prepaidkarte, iDeal, Vorkasse in Filiale

Source: EHI-Study, Online-Payment, 2019

How do you pay online for physical goods in Germany?

➤ Purchase on account is the most popular means of payment

➤ PayPal takes second place, followed by SEPA direct debit and the credit cards

➡ **Statistics on B2C online shops with physical goods; the results of which cannot be transferred 1:1 to the mobility industry.**

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Why is paying for Public Transport different?

0,66%

15,90%

45,14%

38,30%

Payment type distribution
for LogPay in 2019
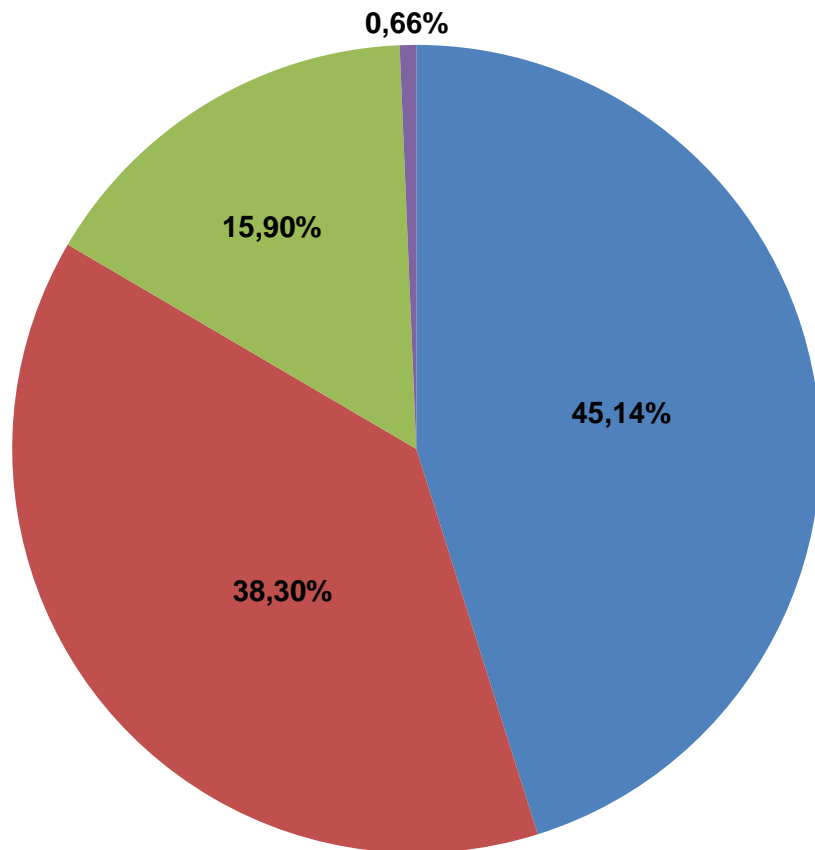
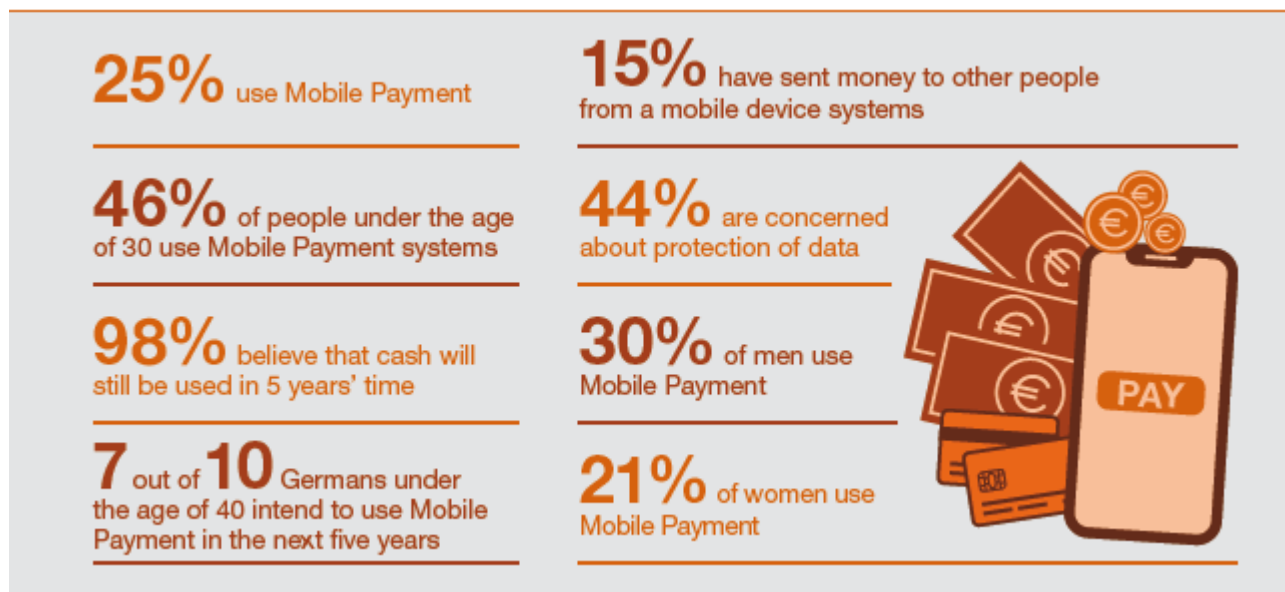- ■ SEPA Direct Debit
- ■ Credit card
- ■ Online-Wallets*
- ■ Prepay-Payment methods*

*Cluster Online-Wallets = PayPal, ApplePay, GooglePay und AmazonPay

*Cluster Prepay-Payment methods = giropay, SOFORT, Prepaid, MNO-Billing

Trends Mobile Payment in Germany

Study by pwc in 2019

25% use Mobile Payment

15% have sent money to other people from a mobile device systems

46% of people under the age of 30 use Mobile Payment systems

44% are concerned about protection of data

98% believe that cash will still be used in 5 years' time

30% of men use Mobile Payment

7 out of 10 Germans under the age of 40 intend to use Mobile Payment in the next five years

21% of women use Mobile Payment

* **Definition Mobile Payment** (pwc): Cashless payment for goods or services made with a smartphone or tablet.

6. IoT & Online Payment & Mobility Services got you interested?

Picture: Banksy, Screaming Child with smartphone in hand and "0 comments, 0 likes, 0 friends'

Your are invited to join the LogPayaner Family

Your choice:

- Working student
- Dual student

Your goals:

- Supervision of theses
- Working in teams
- Do your own project

Your skills:

- Engage with motivation
- Apply methods & knowledge
- German Speaking & Writing