

Arvato Payments Review

Essential insights for e-commerce success in new markets

arvato BERTELSMANN

Cross-border e-commerce is opening up a world of opportunities for retailers. You can reach out to dozens of new markets, and find millions of new customers. E-commerce also puts a world of choice in the hands of consumers, who think nothing of going abroad to find what they want. They might be looking for a better price, a better selection or better service. Give them what they want, and the world is yours.

But you need to know what you are getting into. The consumers in your new markets can behave completelydifferently to the ones you know from home. You can't rely on experience from your home market when you are trying to win over and keep customers in another country. That's why we have produced the Arvato Payments Review, to provide you with the knowledge and insights you need when you are expanding into new markets.

How to succeed in cross-border e-commerce

The Arvato Payments Review brings together extensive quantitative research with insights from our experts to provide the big picture when it comes to Payment Methods, Risk and Fraud, and Consumer Behaviour in 14 of the most vibrant e-commerce markets in the world. We examined more than 200 primary sources and compiled the most essential information into a convenient guide to each country. By combining the figures from a wide variety of research, we could provide a holistic view – rather than relying on a single source.

Each country guide looks at key demographics and financials, the top online retailers, legal requirements, and consumer behaviour and expectations when it comes to things like delivery and returns. We also look in detail at how consumers prefer to pay in each market, identifying local payment heroes and the optimal mix of payment methods.

As well as success factors, it is also important to understand the downsides. We take a close look at risks in each country in terms of the types of fraud that can emerge and what you can do to minimise your exposure.

In addition to the country guides, you can also compare markets in terms of key parameters to see how they stack up against each other.

Your customers are comparing you with your competitors

Comparison is at the heart of cross-border e-commerce. Smart consumers shop around, and with online shopping they know of a better deal with the click of a mouse or tap of their phones. The research in our Arvato Payments Review confirms our observation that some markets are more open to shopping across national borders, while others are more content with their local retailers. Why some and not others? For some markets, consumers are simply happy with what they can get locally: the selection, service and prices match their demands, so there is no need. But there are often other factors that play into this.

Arvato Payments Review

Trust is one of the big ones. Consumers who are reluctant to shop internationally are often concerned about how warranties and returns will work if they buy cross-border. There might even be an inherent bias towards local retailers, who consumers perceive to be more reliable, or faster, when it comes to delivery. Another important factor here is accessibility: markets such as France and Germany express a clear preference for sites in their own languages.

But even in more conservative markets, cross-border shopping is becoming more popular – when it is done well. It comes down to providing consumers with what they are looking for: better prices, more choice, a richer all-round experience. With the most successful cross-border retailers, consumers don't care if they are domestic or international: they get what they want, quickly, cheaply and efficiently.

The key is to remove as much friction as possible, knowing and anticipating consumer demands and wishes. That boils down to knowledge and insight into the market. What are the legal requirements? Do consumers want a site in their own language? Do they expect next-day delivery? How do they want to pay?

Finding the optimal payment mix

Payments are at the heart of this review. Our research confirms that local payment heroes are essential for successful business. If you don't use Carte Bancaire in France, or iDEAL in the Netherlands, or offer open invoice in Germany, you are not in the game. The insights we are offering go beyond which payment methods to provide: in some markets, you would be well advised to work with a local card acquirer so you don't miss out on conversions. A local partner can help in other ways. This is especially important to retailers entering a new market and not only with payments but also logistics and deliveries, returns and customer service. Many retailers choose to work with a partner who can help in one or more of these areas, especially during launch, to assist with local insights and information, payments, logistics, and even service centres. It's a sure-fire way to hit the ground running and establish a good reputation among your new customers.

All this information is vital for you when entering new markets. And you will find it here. Once you know what to expect, your business will have a real competitive edge – regardless of where your customers are.

Contact

If you have questions or want to know more about what Arvato can do for you, you are welcome to contact Emma Solman, Marketing Manager:

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About the Arvato Payments Review



The Arvato Payments Review provides retailers with country-specific information on payments and fraud-related topics in 14 of the most vibrant e-commerce markets in the world – 13 in Europe plus the USA – so they can make the right decisions in their e-commerce payment strategy.

The e-commerce payments landscape is becoming more and more fragmented. Not only do payment methods vary from market to market but consumers are becoming more sophisticated.

Alongside advances in technology, changes in banking regulation are clearing the way for new players to enter with solutions that are designed around convenience, safety and simplicity – all heavily supported by strong mobile adoption and advances in authentication technology such as biometric identification.

In this rapidly evolving world, retailers looking to expand their business internationally often lack objective insight into local market conditions as well as relevant advice on payments and risk management. The Arvato Payments Review provides that insight and advice.

Methodology

The Arvato Payments Review has been compiled by Arvato Financial Solutions, a division of Arvato Bertelsmann, and business consultancy mm1. The findings are based on secondary research and analysis by consulting firms such as McKinsey, BCG, and AT Kearney, as well as reports from payments and e-commerce associations such as the Merchant Risk Council, facts and figures on e-wallets and other payment schemes and providers, and news articles. The Arvato Payments Review also features recommendations and advice from Arvato experts in the areas of payment methods, fraud and risk, and consumer behaviour.

Arvato Financial Solutions

Arvato Financial Solutions delivers a complete suite of financial services that improve business processes while delivering a better overall customer experience. Cutting-edge solutions covering everything from risk assessment, payments and invoicing to debt collection and management ensure conveniencein every transaction. Part of Arvato Bertelsmann, Arvato Financial Solutions is Europe's third-largest integrated financial service provider specialising in the retail/e-commerce, telecommunications, insurance, banking and healthcare industries.

finance.arvato.com

MM1

mm1 supports large companies in digital transformation and designing products and processes for an increasingly digital world. Some 50 consultants provide services ranging from developing connected business strategies and business models to ensuring efficient operational implementation. mm1's customers include companies in the telecommunications, media, consumer electronics, financial services and automotive industries.

mm1.com

How to read this report



Important definitions

Cross border sales: the percentage of domestic and cross-border e-commerce in a country.

Ease of Doing Business Index: The higher a country's ranking in the World Bank Group's Ease of Doing Business Index, the more business-friendly local regulations are when establishing a presence there.

E-commerce turnover is defined by the Global Online Measurement Standard for B2C E-Commerce. Accordingly, business-to-consumer e-commerce turnover includes all online transactions between businesses and consumers on desktop computers, laptops, tablets, smartphones, and other devices both offline and online. B2C e-commerce turnover includes value-added tax or other sales taxes, delivery costs and apps, but excludes returns.

eGDP: the proportion of goods and services bought online in comparison to GDP. The rankings stated come from e-commerce association Ecommerce Europe.

Fraud rate: the percentage of total sales lost because of fraud each year.

Logistics Performance Index: The World Bank's benchmarking tool *Logistics Performance Index* is a measure of a country's logistical friendliness with around 160 countries ranked on their trade logistics performance.

Mobile adoption: smartphone use as a percentage of the total population.

Mobile commerce: the ability to conduct commerce using a mobile device, for example mobile phone, smartphone, tablet or other mobile equipment.

Manual order review rate: the percentage of e-commerce transactions manually reviewed by retailers.

Explanatory notes

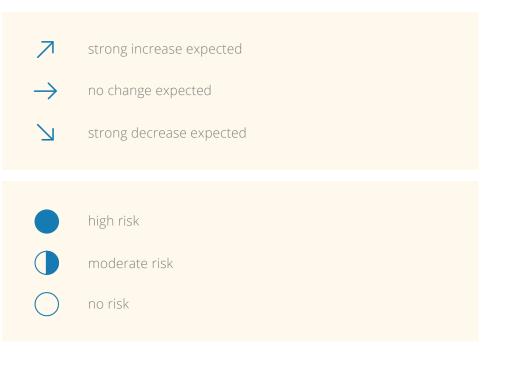
Issuer landscape: the percentage of traditional 3D Secure and risk-based authentication programs by market.

Market demographics: the local population over 15 years of age and the corresponding percentage of internet users and online shoppers.

Relevant payment methods

The term 'cards' includes both credit and debit cards. The number of consumers using a payment method is indicated by blue dots (one blue dot is equal to 10%).

'Trend' points to the future popularity of a payment method, whereas 'risk' indicates the level of threat associated with a payment method. Arvato uses the following symbols to give its assessment:



Finland



Executive Summary

With young consumers already used to cross-border shopping, older segments of the Finnish population are now catching on quickly to online shopping. The Finnish e-commerce sector is still dominated by online bank transfers and card payments, and is yet to fully exploit the benefits provided by other APMs



Market overview



Young Finnish consumers are leading an increase in cross-border shopping. Shops in the unique Finnish language are a good first step for new players.



Market demographics Population > 15 years 4.6m Internet users 97% Online shoppers 79% GDP per capita 40,800 €

spending per shopper & anno: 2,170 €

| 6. | H&M |
|----|----------|
| 7. | CDon |
| 8. | Hobbyhal |
| | 7. |

9.

10. Prisma

Market characteristics

4. Zalando

5. Amazon

| Logistics performance index | 14th |
|------------------------------|------|
| Ease of doing business index | 12th |
| eGDP ranking | 9th |
| Unemployment rate | 5.7% |
| Inflation rate | 0.8% |

Assessment/Recommendations

Opportunities

Consumer: Finnish online consumers are not as demanding as, for example, Swedes in regards to delivery time or return rates. The elderly generation is catching up.

Threats

Market & trust: Merchants still need to develop trust in online shopping to drive e-commerce sales further.

Recommendations

- For logistics: a combination of physical and online stores can satisfy demand for accessibility and provide delivery to the workplace or automated parcel lockers.
- Provide your online shop in the local language: Finns are more likely to buy from a shop in their own language.

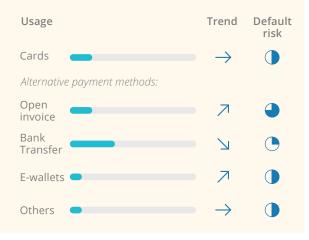


Payment Methods



Finland is at the forefront of open invoice payments, which are the second most used payment method in the market after bank transfers.

Payment methods



Arvato's take on this market

- Online bank transfer is the dominant choice of consumers in Finland.
- Finland is at the forefront of open invoice payment: this alternative payment method is the second most-used in the market.
- Credit and debit cards are equally popular. Finns are slightly more cautious about providing personal data and information than other Nordic consumers. This could mean that m-commerce adoption will be slower than in other Nordic markets. Carrier billing is preferred by many Finns when using their mobile phone to shop.
- In the near future the payment market is likely going to be more fragmented than today, with new players and initiatives like Siirto* entering with solutions that are convenient, safe and simple.

*Siirto is the recently announced joint effort of the three largest Finnish banks to provide real-time mobile payments for online and offline as well as P2P.

Specific card information



Local acquiring recommended?

No.

Further information

The Finns make almost twice as many cashless transactions than the average EU citizen (per capita)

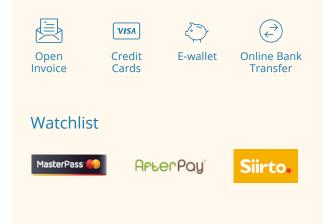
Specific information on APMs

Local payment hero:

Open Invoice

- Instalments or account solutions are standard, essentials as part of the open-invoice payment method.
- Most invoice solutions are financed by third-party providers. There are a few major suppliers such as Arvato and Klarna.

Required payment methods





Risk and Fraud



Until recently, Finland has had a relatively low proportion of fraudulent transactions, but this is changing. Finnish statistics show that fraudulent online payments grew 167% from 2015 to 2016.

Expert tip Offer free returns and adapt to the local language.

Card related fraud

N/A

Relevance of typical fraud scams

| Identity theft | |
|----------------|--|
| Clean Fraud | |
| Phishing | |

Arvato's take on this market

- In 2014, Finland had the third-lowest rate of fraudulent e-commerce transactions. Yet, there are some common fraud scams worth noting:
 - Identity theft, especially the use of a stolen SSN to shop online. Mitigate and reduce this by accepting only deliveries to an official address, or "collect at store" with ID check.
 - Stealing card data and then pretending to be an official, asking for the PIN for security reasons, or simply using the stolen card for purchases and asking for delivery to pick-up stations.
- For card payments, all major issuers allow consumers to block online purchases or purchases from specific markets.
- All online bank transactions must be authorised with the strong identification method TUPAS, a joint initiative of all banks in Finland. Card issuers also require merchants to use TUPAS for a ll card transactions if a liability shift is desired by the merchant. Strong authentication can be circumvented but then the merchant is liable for losses.
- Offering open invoice will drive conversions, but also increase the risk of fraud. Mitigate this by using a financial partner to outsource these risks in Denmark, for example, this is a standard part of the overall financial agreement between a merchant and an open-invoice provider.



Risk management tools



Country-specific tools TUPAS



Advanced tools Device fingerprinting 3D secure



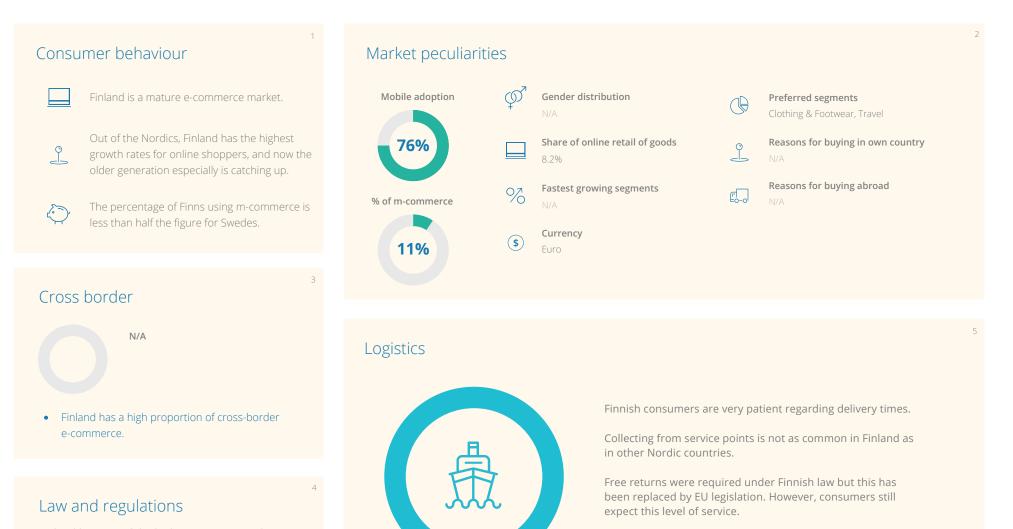
Classical tools CVN Negative lists



Consumer Behaviour



Finnish consumers are very patient regarding delivery time. Older shoppers are catching on to the benefits of shopping online.



Finland has one of the highest VAT rates with 24%. Finns had the right, by law, to return any goods free of charge. This is no longer the case since Finland aligned with EU regulations.

But they are ahead in deliveries to automated parcel lockers.

Sources

The data contained in this report comes from a wide variety of sources, including financial reports, industry publications, blogs and news stories. During the course of our research we have consulted more than 200 national and international studies. You will find them here under the headings E-Commerce and Payment & Fraud. While every effort has been made to make sure the information presented in the report is reliable, we cannot be held responsible for its veracity. We do, however, stand by the opinions expressed in the report unreservedly.

E-commerce:

Adyen - Global E-Commerce Payments Guide allpago - Ultimate Guideline for local and cross-broder payment processing in brazil allpago - Online payments in Brazil 2015 allpago - Online payments in Columbia 2015 allpago - Online payments in Mexico 2015 deals.com - Internationale E-Commerce Studie 2015 COMEOS - Ecommerce Belgium 2015 CyberSource - Online payments China 2015 DIBS - Nordic E-Commerce 2014-15 DIBS - Denmark Ecommerce 2015 DIBS - Norwegian Ecommerce 2015 DIBS - Swedish Ecommerce 2015 Digital River - Build an E-Commerce Business in Brazil Digital River - China, Global Payments Solutions & Ecommerce Solutions Digital River - E-Commerce Germany Digital River - Norway Dyn - Global Consumer Online Shopping Expectations Ecommerce Benchmark & Retail Report 2016 Ecommerce Community - Ecommerce Country Report Israel 2015 Ecommerce Community - Ecommerce Country Report South Africa 2015 Ecommerce Community - Ecommerce Country Report UAE 2015 Ecommerce Community - Ecommerce Country Report Russia 2016 Ecommerce Europe - Asia Pacific B2C E-Commerce Report 2016 Ecommerce Europe - Australia B2C E-Commerce Report 2016 Ecommerce Europe - Central Europe B2C Ecommerce Report 2015 Ecommerce Europe - Cross-Border E-Commerce Barometer 2016 Ecommerce Europe - Ecommerce Country Report Belgium 2016 Ecommerce Europe - Ecommerce Country Report Germany 2016 Ecommerce Europe - Ecommerce Country Report France 2016 Ecommerce Europe - Ecommerce Country Report Netherlands 2016

Ecommerce Europe - Ecommerce Country Report UK 2016 Ecommerce Europe - Ecommerce Country Report US 2016 Ecommerce Europe - E-Commerce in Poland 2014 Ecommerce Europe - European B2C E-Commerce Report 2016 Ecommerce Europe - Global B2C Ecommerce Report 2015 Ecommerce Europe - Latin America B2C E-Commerce Report 2015 Ecommerce Europe - Southern Europe B2C Ecommerce Report 2015 Ecommerce Europe - Northern Europe B2C Ecommerce Report 2015 Ecommerce Europe - Western Europe B2C Ecommerce Report 2015 Ecommerce Foundation - Democratization of Retail and the Rise of Global Marketplaces Ecommerce Foundation - Cross Border E-Commerce Barometer Ecommerce Foundation - MENA B2C Ecommerce Report 2014 Ecommerce in Poland 2014 Ecommerce Worldwide - Germany Passport 2015 Ecommerce Worldwide - Belgium & Netherlands Passport 2016 ECC Köln - B2B Marktplätze 2016 EY - Corporate misconduct - individual consequences FHM - Competitive analysis of online Payment Service Providers in an international environment Goldman Sachs - Updating the Goldman Sachs global ecommerce forecast GTAI - fact sheet Ecommerce 2015 iBusinnes - Die größten Onlineshops Deutschlands 2015 iBusiness - Die größten Onlineshops Österreichs 2015 iBusinnes - Die größten Onlineshops Schweiz 2015 iBusiness - Payments Trends E-commerce 2015 Internet World - Ecommerce Markt Österreich 2015 IREU Top 500 - Top 500 Ecommerce and multichannel retailers KPMG - Doing Business in Russia 2015 netz 98 - Zukunftsthemen im E-Commerce Paypers - Cross-Border Ecommerce Report Australia 2016 Paypers - Cross Border Ecommerce Report China 2014 & 2015 Paypers - Cross Border Ecommerce Report Canada 2015 Paypers - Cross Border Ecommerce Report Columbia 2015 Paypers - Cross Border Ecommerce Report Germany 2014 Paypers - Cross Border Ecommerce Report France 2014 Paypers - Cross Border Ecommerce Report Israel 2015 Paypers - Cross-Border Ecommerce Report India 2016 Paypers - Cross Border Ecommerce Report Indonesia 2014 Paypers - Cross Border Ecommerce Report Italy 2014 Paypers - Cross Border Ecommerce Report Japan 2014 Paypers - Cross Border Ecommerce Report Mexico 2015 Paypers - Cross Border Ecommerce Report New Zealand 2015 Paypers - Cross Border Ecommerce Report Poland 2014-15

Sources

Paypers - Cross Border Ecommerce Report Russia 2015 Paypers - Cross Border Ecommerce Report Singapore 2015 Paypers - Cross Border Ecommerce Report South Africa 2015 Paypers - Cross Border Ecommerce Report South Korea 2014 Paypers - Cross Border Ecommerce Report Thailand 2015 Paypers - Cross Border Ecommerce Report Turkey 2014 Paypers - Cross Border Ecommerce Report UAE 2015 Paypers - Ecommerce Payment Methods Report 2016 Paypers - Brazil Postnord - E-Commerce in Europe 2015 postnord - E-Commerce in the Nordics 2016 postnord - E-Commerce in the Nordics six month report 2016 sagepay - Ecommerce Benchmark Report Statista - E -Commerce in Austria Statista - E-Commerce in Canada Statista - E-Commerce in Germany Statista - Ecommerce in Switzerland Statista - E-Commerce in South Corea Statista - E-Commerce in the US Statista - E-Commerce weltweit Dossier Statista - Economic Outlook Sweden Statista - Statista Dossier Europa Statista - Statista Dossier Sweden Statista - Statista Dossier Poland Statista - Statista Dossier United Kingdom Statista - Statista Dossier South Korea Statista - Top 5 foreign countries for online shopping in Sweden 2015 tecnocom - E-Commerce Payment Report 2014 votum - Online Kaufverhalten im B2B E-Commerce Worldpay - Brazil Optimizing the only payment journey for shoppers 2015 XBC Country Report Austria 2013-14 XBC Country Report Germany 2013-14

Payment & Fraud:

Accertify - Augmenting 3-D Secure Accertify - Fraud Management Accertify - Merchant Risk Sell Sheet Accertify - Payment Gateway Accertify - Support Services ACI - Managing Fraud in an Omni-Channel World Adyen - Accept Android Pay in UK (Article) Adyen - Alipay Payment Method Guide (Article) Adyen - Boleto Payment Method Guide (Article) Adyen - Boost your Business in Belgium with Bancontact Adyen - Brazil Payments 2014 Adyen - Build your Business in Brazil with Boleto Adyen - Country Payments Guide China Adyen - Cross Border Payments Adyen - Expand across Europe with SEPA Direct Debit (Article) Adven - France acquiring Guide 2015 Adyen - France B2C Ecommerce Report Adyen - Global ecommerce payments Guide Adyen - Grow in Germany with Giropay (Article) Adyen - How Payments can drive your global expansion (Article) Adyen - Mobile share of local payment methods approaches 50 percent (Article) Adyen - More than a third of global transactions now mobile (Article) Adyen - Optimizing payments for omni-channel commerce Adyen - Payment Method Overview and Pricing Adyen - Payment Methods (Article) Adyen - Payment Methods Northamerica Adyen - Payments in China Adyen - Pricing Overview Adyen - Risk Management arvato - Entwicklung und Trends im Zahlungsverhalten 2015 arvato - Mobile Payments landscape arvato - Fraud Management China eCommerce arvato - Payment Methods in Middle East arvato - online payment methods Netherlands BCG - Global Payments 2015 BCG, Google - Digital Payments 2020 Capgemini - Payment Trends 2016 Capgemini - World Payments Report 2015 Cardinal Commerce - Payment (Infographic) Cardinal Commerce - The truth about false positives Cardinal Commerce - Use of Consumer Authentication in eCommerce Annual Survey Confinpro - Zukunft oder Ende des Bankings CyberSource - Annual Fraud Benchmark Report: A Balancing Act CyberSource - North America Fraud Benchmark Report CyberSource - Online Fraud Report 2012 CyberSource - UK E-commerce Fraud Report

Sources



Deutsche Bundesbank - Zahlungsverhalten in Deutschland 2014 DIBS - Nordic E-Commerce 2015 Digital River - China, Global Payments Solutions & Ecommerce Solutions Digital River - Norway Digital Transactions - Fraud in the US (Article) ECB - Interchange fees in card payments 2011 ECB - Payment Statistics ECC - Payment im E-Commerce Vol. 19 Ecommerce Leitfaden - Ratenkauf im Ecommerce 2015 EHI - Distribution of Payment Systems Germany 2015 EU - Regulation on interchange fees for card-based transaction 2015 Exane BNP Paribas - Payment & Security EY - Global Fraud Survey 2014 FirstData - Payeezy Tokenization ApplePay FOM - Quo Vadis Payment Service Provider 2015 Gartner - Magic Quadrant for Web Fraud Detection Gartner - Market Guide for Online Fraud Detection heidelpay - Risk- and Fraud- Management Tools Ingenico - global online fraud panorama 2016 ibi - Payment Barometer ibi - Erfolgsfaktoren und Hindernisse bei M-Payment ibi - Kosten der Kreditkarte IBM - Payments Gateway IFH Köln - Konsoldierung im Payment Markt 2015 Kount - Calculating the 9 deadly costs of fraud Kount - Mobile Payments & Fraud: 2016 Report Let's Talk Payments - Insights from the Global Payment Market (Article) Lexis Nexis - True Cost of Fraud Study 2016 London Econonomics - Study on the impact of PSD 2011 Mastercard - US interchange rates 2016 McKinsey - Global Payments 2015 McKinsey - Payments in Asia MIT Technology Review - The future of Money Miura Systems - When worlds collide: Store staff and shoppers in retail today Monetary policy & The Economy - Internet Payment behaviour Austria 2013 MRC - Brussels Omnichannel Payments MRC - Europe Mobile Payments and Wallets MRC - German Payment Landscape MRC - Global Fraud Survey 2015 MRC - Global Fraud Survey Results

MRC - Global Payment Benchmark Report MRC - Global Payment Survey 2016 MRC - Global Payment Survey Findings 2016 MRC - Cross Border Sales and Payments Russia 2015 Office Journal of the EU - Acquiring EU 2015 Nilson Report 2015 - 1068 Nilson Report 2015 - 1069 Nilson Report 2015 - 1071 PayPal - Cross Border Consumer Research Insights 2015 PayPal - Modern Spice Routes Paypers - B2B Payments, supply chain Finance E-invoicing Market Guide 2015 Paypers - Brazil Paypers - China Paypers - Online Payments Market Guide 2015 Paypers - Ecommerce Payment Methods Report 2016 Payments UK - Understanding the different payment methods in the UK Payments UK - World Class Payments 2016 Payvision - Mobile Payments report 2016 PYMNTS - Global Fraud Attack Index 2016 Raconteur - Future of Payments 2015 Shopanbieter.de - Vertrieb über Marktplätze 2015 shopanbieter.de - Ratgeber Rechnungskauf in Onlineshops Statista - Credit Cards in the US Statista - Online payment methods used by online shoppers in Denmark Statista - Onlineshopping Payment US 2016 Statista - Preferred Digital Payment Methods in France 2015 Statista - Preferred Digital Payment Methods in Germany 2015 Statista - Preferred Digital Payment Methods in Netherlands 2015 Statista - Preferred Digital Payment Methods in Spain 2015 Statista - Preferred Digital Payment Methods in Sweden 2015 Statista - Preferred Digital Payment Methods in the UK 2015 Statista - Preferred Digital Payment Methods in the US 2015 Statista - Types of online payment in Finland 2015 Statista - Usage of digital payment services in Sweden 2015 TeleSign - Fraud Report 2014 ThreatMetrix - Cybercrime Report: Q1 2015 TSYS - German Consumer Payment Study 2016 Visa - Merchants Guide to risk management 2013 Worldpay - Global Payments report 2015 Worldpay - Fragmentation of Fraud