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E-COMMERCE PAYMENT METHODS – FROM TRADITIONAL TO
ONLINE STORE

Thesis
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Title E-Commerce Payment Methods – From Traditional to Online Store Commissioned by Case Company X	
Abstract A well-functioning online store can make purchasing easy for consumers and order processing quite effortless for sellers. E-commerce payments and payment gateways are an important puzzle piece in a functioning online store. This thesis has two major purposes: (1) to study the most popular e-commerce payment methods and how they can be applied to online stores, and (2) to research whether a case company should shift all their sales to be carried out through their online store. The research is done by interviewing specialists from the field of banking and the case company's representatives. In addition, data for the study is gathered from a primary research conducted for the case company's customers, as well as secondary data and relevant literature. The results from the research show that majority of the case company's customers would be willing to order products online. The specialists support this, as modern and e-commerce payment methods tend to be safer than traditional ones. However, since 25% of customers would not purchase online, the case company should continue invoicing some customers as they currently do.	
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Tiivistelmä

Toimiva verkkokauppa tekee ostamisesta helppoa asiakkaille ja tilausten käsittelystä vaivatonta yritykselle. Sähköinen maksuliike ja sen mahdollistaminen ovat tärkeä osa toimivaa verkkokauppaa.

Tällä opinnäytetyöllä on kaksi tavoitetta: (1) opiskella käytetyimpiä sähköisiä maksutapoja ja niiden käyttöä, sekä (2) tutkia kannattaako Company X:n muuttaa rahaliikennettä niin, että tulevaisuudessa kaikki myynti tapahtuisi verkkokaupan kautta.

Opinnäytetyön tutkimus koostui pankin asiantuntijoiden sekä yrityksen edustajien haastatteluista, kyselystä yrityksen asiakkaille, sekä kirjallisuudesta ja aikaisemmista tutkimustuloksista.

Tulosten mukaan suurin osa yrityksen asiakkaista olisi valmis tilaamaan tuotteita verkkokaupan kautta. Asiantuntijat tukevat verkkomaksamista, sillä heidän mukaansa modernit ja sähköiset maksutavat ovat perinteisiä maksutapoja turvallisempia. Siitäkin huolimatta yrityksen kannattaa harkita laskuttavansa osaa asiakkaista vanhaan malliin, sillä 25% asiakkaista ei halua ostaa tuotteita verkossa.

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EnglantiSivuja 32
Liitteitä 3

Asiasanat

E-kauppa, sähköinen maksuliike, maksutavat, verkkokauppa

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1 INTRODUCTION

1.1 Background

The modern world is a continuously changing concept, where business plays an important role in development of the society. New ways of communication provide businesses with new ways of running their operations, and the author believes that the Internet is undoubtedly one of the most influential phenomena which improve the world of business.

Nowadays, it is very easy to make a purchase without even leaving home – one can simply use a credit card or an internet account to buy food, clothes, car, tickets, services, or any other form of purchase. The possibility to use new methods of payment systems allows one to purchase online across the globe, benefitting both consumers and business.

1.2 Aim of the study

The purpose of this thesis is to narrate the modern world's electronic payment methods. The theoretical part goes deep into the methods of payment transactions used in e-commerce, discloses history and current statistics, analyses facts and compares them with each other.

Furthermore, these methods are applied to a case study, where Company X aims to develop their business. The internationally operative case company plans to shift all of their payment transactions to be carried out through their online store and electronic payment services. A research conducted for this thesis aims to find out the case company's customers' opinion, and to find the best solution that serves both, customers and the business.

1.3 Outline of the report

The first section of this thesis focuses on history and statistics about internet usage. It narrates how the Internet and online stores were developed, and how digital payments were built around the web. It discusses how widespread the internet usage is now in Finland and globally, and how extensively it is used for e-commerce purchases by consumers. Furthermore, it includes legislative information about online banking in Finland.

The second section explores the payment transaction methods that are used online. It introduces the industry of payment gateways, and gives a more detailed explanation of the most used methods of payment transactions. Finally, a comparison of the methods is made in order to disclose the advantages and disadvantages in them.

The theoretical sections are followed by a brief case study. It narrates the case company's future plans and its current situation. This is followed by a research conducted for the company's customers and the analysis of the research. At the end of this thesis the theoretical information is applied to the results of the research, and conclusions are given.

2 USAGE OF ONLINE SHOPPING

Sales and purchases via online stores naturally require an internet connection. Having access to the internet is not a forgone conclusion, but undoubtedly it is starting to be a norm – at least in the western world. The following section explains how this all came to be. It tells about the history of the internet, especially how e-commerce was developed and how digital payments were applied to online shopping. Furthermore, the statistical information of the internet and online store usage is presented.

2.1 History of e-commerce

The early steps of e-commerce date back all the way to the 1960s, when Electronic Data Interchange (EDI) was developed. By the 1980s EDI had enabled the digital transfer of data from computer to computer, thus allowing the replacement of traditional mailing and faxing of documents. Because of EDI, trading partners could start transferring orders, invoices and other business transactions. Electronic Data Interchange had made it possible to transfer data seamlessly without any human intervention. (Miva. 2011.)

According to Miva (2011), Michael Aldrich, an English inventor, innovator and entrepreneur is credited with developing the predecessor of online shopping. The Michael Aldrich Archives (2011) explain how it all came to be; Aldrich got the idea on a stroll with his wife and Labrador retriever when he lamented about their weekly supermarket shopping expedition. The conversation they had sparked an idea to hook a television to their supermarket to deliver groceries. Immediately after the discussion, Aldrich started to plan the idea and implement it. By 1979 he had connected a television set to a transaction processing computer with a telephone line and created teleshopping, i.e. shopping at a distance. (The Michael Aldrich Archive 2011; Miva 2011.)

What Aldrich created made business to business online shopping more effortless, but did not yet reach the consumers. It was not until the wide use of PCs

and the World Wide Web, later more widely known as the internet, when e-commerce came to the knowledge of consumers. This happened in 1982 when France launched the precursor of the Internet called Minitel. (Miva 2011)

Back then Minitel was free for telephone subscribers and could connect millions of users to computing networks through telephone lines. By 1999 Minitel had distributed over 9 million terminals and connected approximately 25 million users in this interconnected network of machines. Soon, the forerunner Minitel was shut down when the success story of the Internet had its beginning. (Miva 2011.)

In 1990 Tim Berners Lee and Robert Cailliau published a proposal to build a "Hypertext project" called the WorldWideWeb. The same year Lee created the first web browser, and shortly thereafter, in 1991 he debuted the web as a publicly available service on the internet. Lee's process of marrying hypertext to the internet led him into developing URL, HTML and HTTP. (Miva 2011.)

The internet and online shopping saw a remarkable growth right after Lee's and Cailliau's inventions, as well as National Science Foundation (NSF) lifting its restrictions on commercial use of the NET. By September 1995 the internet had already 120,000 registered domain names, after which NSF started to charge a fee on domain registration. Even so, the popularity skyrocketed, and three years later the number of registered domain names had grown beyond 2 million. (Miva 2011.)

The future of consumerism and e-commerce was already predicted in 1992, when J.H. Snider and Ziporyn Terra wrote the book *How Technologies Will Change the Way We Shop and What We Buy*. A couple of years later they were proven right, when the Internet was booming and Amazon.com was launched. (Miva 2011.)

Especially during the latter half of the nineties the commercial use of Internet saw major advancements. When the pioneer of online stores, Amazon, was first launched as a book store, it became visible how huge retailers could actually become online. Miva (2011) explains that when brick and mortar bookstores

were limited to 200,000 titles, Amazon as an online store was able to offer exponentially more products, as it had no physical limitations, hence its exploding popularity. (Miva 2011.)

Since then, Amazon itself has grown exponentially. Instead of limiting the business to only books it now offers the widest variety of products and content. Soon after Amazon's breakthrough success stories in e-commerce such as eBay, Zappos and Victoria's Secret were introduced. (Miva 2011.)

When e-commerce had its breakthrough, it did not take long until payments were widely transferred online as well. Electronic Funds Transfers (EDF) had basically existed since the development of EDI in 1960s, but B2C online stores could not introduce bank transfers, card payments and e-wallet payments until the late 90s and the beginning of the millennium. (Miva 2011.)

The first online bank in Europe and the second in the world was launched in 1996 (OP 2011). It did not take long for other banks to follow in developments of online banks, and surely enough their usage was included in e-commerce as promptly. Credit card payments online were introduced during the same years, and the pioneer of e-wallets, PayPal, began its services already two years after online banking, in 1998. (Miva 2011.)

The article in Miva (2011) states that as more and more people began doing business online, the need for secure communication and transactions soon became apparent. For this reason the Payment Card Industry Security Standards Council (PCI) was formed in 2004. The duty of the council was, and still is today, to ensure that businesses comply with various security requirements. Furthermore, it was created for the development, enhancement, storage, dissemination and implementation of security standards for account data protection. (Miva 2011.)

When mobile devices were developed and smart phones introduced roughly a decade ago, online stores became even more easily accessible. With mobile commerce gaining speed, even more people started purchasing products, content and services right from the palm of their hands. (Miva 2011.)

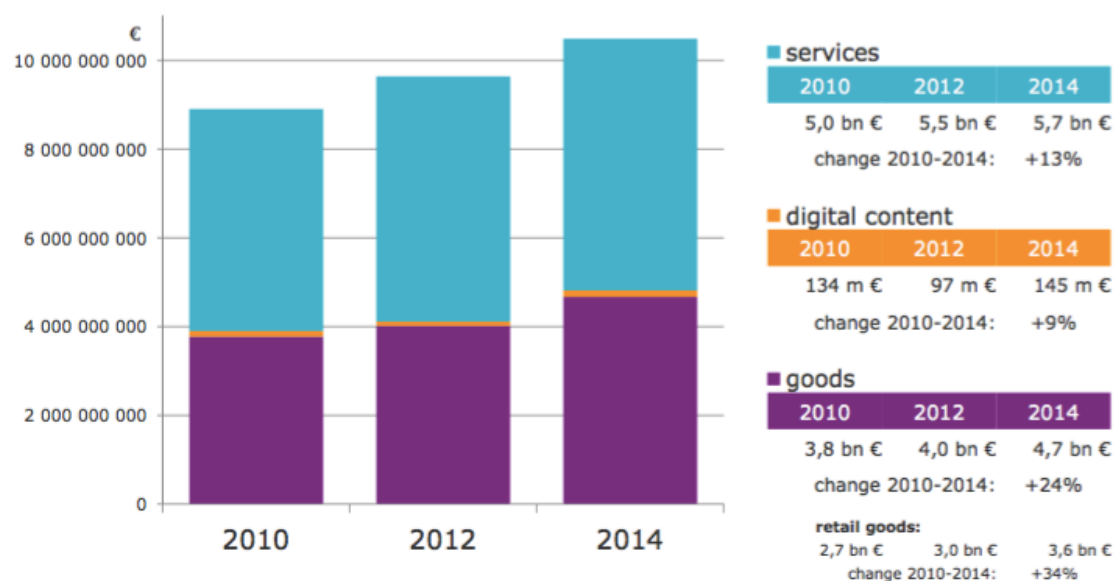
2.2 Statistics about internet usage as a shopping ground

The following statistics reveal the internet usage in Finland and globally. It presents how widely the internet is used as shopping grounds for orders as well as for transferring payments.

2.2.1 Finland

In 2014 Finns bought 10.5 billion euro worth of goods, services and content from online stores, 2,000 euro per capita, 4,000 euros per household (Figure 1). Statistics gathered by the Federation of Finnish Commerce (FFC), TNS Global, and the Finnish Direct Marketing Association (ASML) say, that the volume of e-commerce has been rising every year after they started collecting the data in 2010. Even the recession has not stopped the growth, although it has slowed down. Nevertheless, within the last five years e-commerce purchases have increased almost 25 per cent among the Finnish population. (FFC 2015.)

Over half (53 per cent) of the online sales come from services; tourism, gambling and online games taking the largest share. The sales of goods account for 45 per cent, whereas digital content comprises only 1 per cent of all purchases online. However, from 2013 to 2014 the share of services came down 5 percent and the goods and digital content increased 7 and 12 per cent, respectively. (Finnish E-commerce 2014.) The report of Finnish E-commerce of 2014 conducted by FFC shows the upward trend of online store purchases.



Finnish eCommerce Statistics 2014

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ASML
Asiakasmarkkinointi

KALPIN LITTO

TNS

Figure 1. The increase of purchases online 2010-2014 in Finland (Source: FFC 2015).

According to Statistics Finland (2015), half of the Finnish population followed some social network service on the internet already in 2012. The same year 78 per cent of 16-74 year-olds used the internet daily, whereas in 2015 the share was already 87 per cent and is now only growing in the oldest age groups (OSA 2012 & 2015.) Hence, the internet is very widely used within the country. The report of 2012 by Statistics Finland states that Finland was among the top European countries in internet use, and at the very top in Nordic countries. That year 65 per cent of Finns bought something via the web.

A specialist (2) of daily operations in a Finnish bank (2016) says that according to their research, 95 per cent of Finns who retire these days already use online banking services. Statistics Finland supports this statement by reporting that among Finns online banking is the second most inquired internet use purpose after email (OSA 2015). Furthermore, The Federation of Finnish Financial Services (FFI) researched that in 2015 already 98 per cent of Finnish adults use online banks, and the vast majority them use it at least weekly (Figure 2). Out of that group 88 per cent does use it for paying online purchases, which includes bank transfers and verifications for card payments.

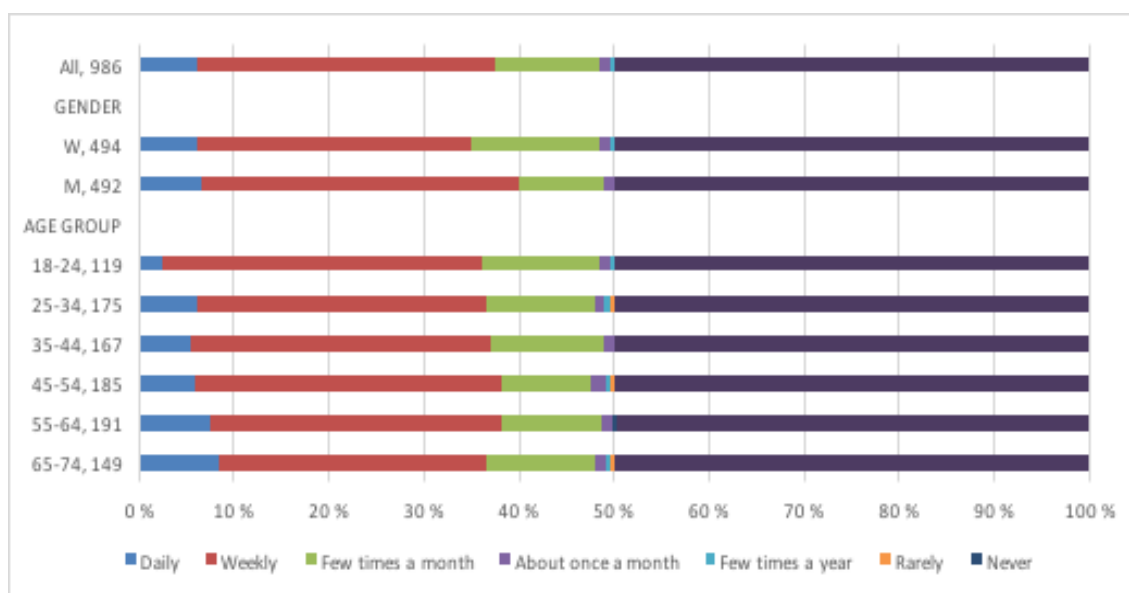


Figure 2. How often do you use an online bank? (Source: The Federation of Finnish Financial Services 2015).

Even though online banking is so widely used, it is not a fundamental service that banks are obliged to offer to their customers. A specialist of daily operations from a Scandinavian bank (2016) says that at the moment in Finland a bank account and a debit card are the only services that every citizen is entitled to get. However, from 2017 on, an online banking account is included in every citizen's rights. An account for one national online bank has to be given to every resident with an official Finnish ID. (Specialist 1, 2016.)

2.2.2 World wide

The e-commerce trend in the whole of Europe follows the same trend as Finland. E-purchases grew 7 per cent from 2008 through 2014, and the e-sales increased 6 per cent within the same years. (Eurostat 2015.) According to Statista (2013) North America and Europe are far ahead of emerging markets when it comes to online store purchases. However, the sales-side is dominated by the Asia-Pacific region. Within the last few and oncoming years the Asia-Pacific region is said to be the largest contributor to global e-commerce. (Statista 2013.)

E-commerce has made it rather effortless to purchase goods and services from abroad. When Americans and Europeans are the largest buyers and Asians are the largest sellers, it could be concluded that the B2C trading across borders has gone rather big. Figure 3 presents the worldwide e-commerce sales from 2012 to an estimate for 2018. In just six years the volume will be doubled from 2012. In 2016 global e-commerce sales reached a record of 1.9 trillion USD. (Statista 2013.)

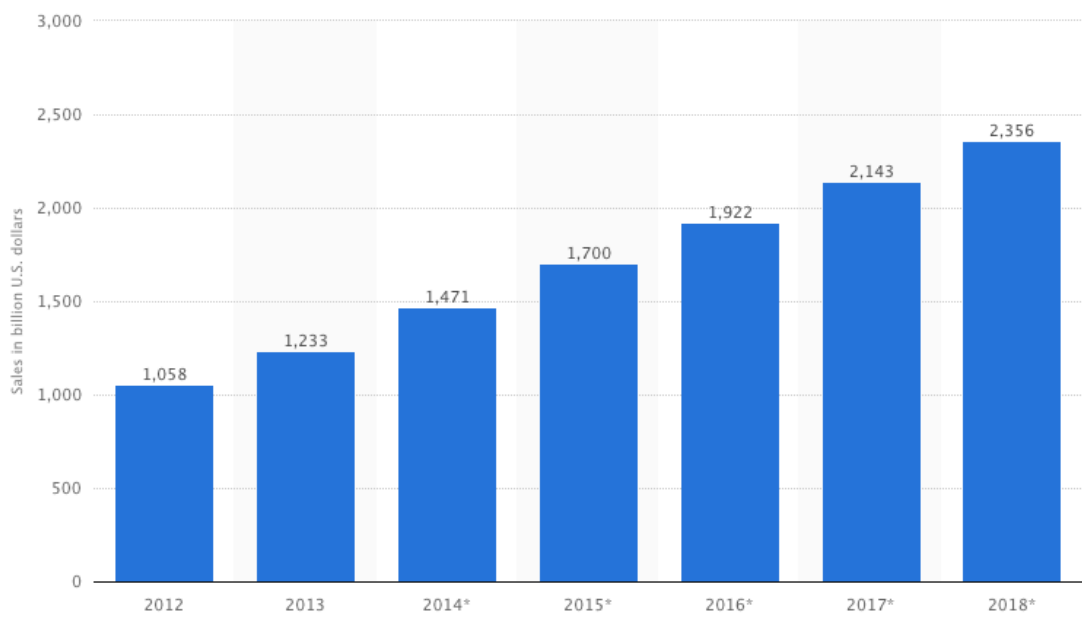


Figure 3. B2C E-commerce sales worldwide from 2012 to 2018 (Source: Statista 2016) *estimate.

3 E-COMMERCE PAYMENT TRANSACTIONS

There are a few ways one can pay for their purchases. In brick and mortar shops the most common methods for payments are cash, credit or debit cards. Cash for example is quite difficult to be applied for making purchases online. For this reason, online shopping has its own digital methods for transferring the currencies. This section presents the world of online payments.

3.1 E-commerce payment Methods

An e-commerce payment system facilitates the acceptance of electronic payment for online transactions. E-commerce payment systems, which are also known as Electronic Data Interchange (EDI), have enabled payment transfers to be made computer-to-computer. Undoubtedly, internet shopping has revolutionized the way businesses can work. The very essence of electronic payment systems is designed to provide business with possible expansion in terms of market reach. Such a system provides great benefits for businesses, as it decreases the amount of fraud and risks for merchants, and therefore expands their abilities to sell worldwide. Simultaneously, by the same token, it benefits the consumers as well. (GSX Inc. 2016.)

Nowadays there are many different platforms that can provide one with an electronic payment system. However, electronic payments themselves can be divided into credit and debit cards, e-wallets and direct payments (i.e. e-pay/online bank transfer).

Figure 4 shows a breakdown of the global e-commerce payment methods by popularity. Card payments take up to over half of all payments, followed by bank transfers, invoices and cash on delivery (CoD), and others. According to the Global Payments Report, the trends are shifting even more towards e-wallet and bank transfer payments. EMEA and Asia are first, North and Latin America right behind. (WorldPay 2015.)

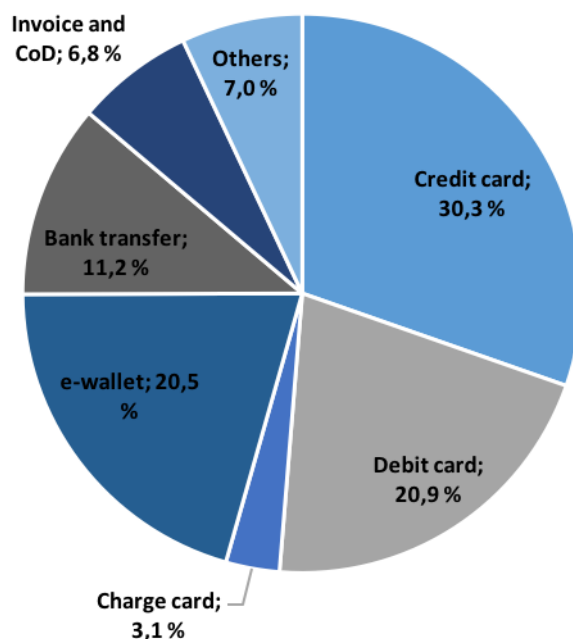


Figure 4. Global payment methods breakdown in 2014 (Source: WorldPay 2015.)

3.1.1 Card payments

“The general-purpose credit card was born in 1966, when the Bank of America established the BankAmerica Service Corporation that franchised the BankAmericard brand (later to be known as Visa) to banks nationwide” (Woolsey & Gerson 2016). Cards could be seen as the 'key' to the consumers' bank accounts. A customer can have a credit, debit, or prepaid card, and use it while shopping either online or in real stores. The most commonly known brands of cards are MasterCard, Visa, American Express, Maestro, and UnionPay. (E-Commerce Payment Systems 2016).

Card payments are considered to be the most dominant forms of online payment (Cards Transaction Statistics 2016). Out of all money transfers, 65% are charged as card payments in North and Latin America, 49% in Europe, Middle East and Africa, and 41% in Asia (2014). These include all three types, i.e. credit, debit and charge cards. (WorldPay 2015.) As in online purchases pre-paid charge cards behave as credit cards, I will not differentiate them from each other.

Debit cards are used in cash transactions, where the money is withdrawn from the card holder's bank account. A specialist (1) of daily operations from a Scandinavian bank explains that the idea of debit cards is that the card holder can pay maximum the amount of their account balance. He explains this to be a rather safe method, as one is clear from paying above their funds and off credit. However, when purchasing with debit card the money is gone when the card is used. With credit cards the money would be secured for a period of time. (Specialist 2, 2016.)

Credit card holders pay from a credit limit approved by the card issuer. It can be a bank, credit institution, store, or a service provider. The used money from the credit has to be paid back to the issuer with charges such as interest and monthly fees. Specialist 2 discloses that the most important benefit of a credit card is that it comes with a purchase protection. This secures both, the payer and the payee. In credit card payments, the card issuer is responsible for delivering the money. In this instant, the consumer is secured if they do not receive what they purchased, because the card issuer is the party experiencing the credit loss. This is a benefit for businesses as well, since their customers do not hesitate to pay in advance as they do not have the risk of losing their money. Hence, the company is not experiencing credit loss either.

3.1.2 E-wallet

Another method of electronic payments, is called an alternative payment method. According to Specialist (2) of daily operations from a Finnish bank (2016), alternative payment methods are considered to be one of the most developing ways to make purchases. Similarly to previous types of online payments, alternative payments provide one with easy and almost costless transaction types, which are secured and protected in order to create the most effective experience for consumers. One of the most used ways of alternative payments is considered to be digital wallets or e-Wallets. (Specialist 2 2016.)

First of all, it should be noted that digital wallets gained incredible popularity among people very rapidly. According to Athey (2016), they can improve the

payment experience and simplify online and mobile checkout, as they allowed using mobile devices in order to create swift and enhanced payment experience (Athey 2016).

Digital wallets are similar to bank accounts – they store money, which then can be used in different stores and shops to purchase particular items or to pay for services. Interestingly, e-Wallets can contain credit and debits cards, as well as connect to other payment methods such as online bank transfers (Comparison of all Online Payment Methods 2016).

Due to the fact that e-Wallets are not physical, they do not require sufficient amount of money to maintain it – most of the time creation and maintenance of e-Wallet is free of charge. There are many e-Wallet systems that can provide one with easy and effective method to make electronic payments. MasterPass by MasterCard and V.me by Visa, are digital wallet brands on the rise, while for quite some time the most popular e-Wallet has considered to be PayPal (Specialist 1 2016).

Due to the fact that before PayPal banks tended to aim toward big companies and organizations and paid less attention to small businesses and individuals, there were no organizations that could have provided the above mentioned part of the population with the possibility to improve electronic transactions. PayPal filled this niche that credit card companies were not able to fill (Comparison of all Online Payment Methods 2016).

Specialist 3 from a Finnish corporate bank backs this fact by saying that in the international context PayPal really has given small businesses the chance to get off the ground. Moreover, that PayPal allows one to add cards of different banks shows the flexibility of the system, allowing small business to create different ways for those customers who prefer to use the internet while shopping.

3.1.3 Bank transfer

The last but not the least of the most common methods of electronic payment is a common electronic fund transfer. This method is known by many names, electronic fund transfer, e-pay, online bank transfer, and so on. This electronic payment method is used to transfer money from one account to another. The usefulness of such a method is that a consumer or a merchant does not need to have a credit card, e-Wallet, or any other form of information, but merely has to know the bank account numbers, and a login and password for their online bank to complete such transactions with the help of the internet. (Specialist 2 2016.)

Accounts could be in different banks and even in different countries. By using a bank's website, anyone can place a request to transfer some amount of money, in basically any currency (Specialist 1 2016.) Another aspect of this system is the protection of data, which is worth all the emphasis. With the help of mobile phones one can be sure that no one would be able to use one's bank account information to steal money – first of all, in order to complete an operation one should enter several codes, which could be sent to a phone number of an owner in order to confirm his identity, and only then to complete the transaction. (Specialist 1 2016.)

3.1.4 Comparison

All of the aforementioned electronic payment methods have their advantages and disadvantages. Specialist 3, representing a corporate bank, says (2016) that from the business' point of view electronic payments are beneficial, as there would be no hiding of income, and therefore no fraud-related matters. The author believes that the biggest advantage is the ability to sell and purchase world wide, and being able to minimize the credit risks. With purchase protection on charges via credit or PayPal, the consumer and business are both secured.

The disadvantages come from charges and customer's limitations. First of all, some customers like associations for example, might not have cards or PayPal accounts on hand. If the customers buy online, but are not given the chance of paying an invoice, they are forced to pay online immediately with a bank transfer. This blocks the possibility for them to pay in instalments. Instead, they have to pay it all at once.

Secondly, the platforms that bring the electronic payment possibilities to business' online stores are not for free. Usually they have a monthly fee and take an extra cost per transaction. These platforms, called payment gateways, usually offer different packages for businesses with different volume of traffic.

3.2 Payment gateway industry

Payment gateways bring multiple players and intermediaries in the payment transactions together. It is a web-based service which ties multiple non-contractual payment methods together without forcing to sign contracts with every bank and credit institution separately (Pennala 2015). In his thesis about the payment gateway industry, Risto Pennala (2015) explains that one single service provider from the industry can offer a package which enables payment transactions through credit cards, bank transfers, virtual currencies and so on.

For companies selling online using such a service provider can be a major shortcut. Pennala (2015) states that merchants seek to offer their customers the most convenient ways to make their purchase, transfer their money, and to have security for their payment. As opposed to having to make contracts with every credit institution, this is a rather effortless method for companies and favourable for consumers.

The expensiveness of using payment gateway services is relative. The service providers usually offer packages for online stores of different volume. For example, a co-op of a Finnish bank called Checkout Finland offers such platforms. Their service with the extensive package allows access to all Finnish online banks, and provide the possibility to pay with Visa or MasterCard, as well as

Collector, Everyday, Jousto, SveaWebPay and mobilepay. For this particular package they ask 45 EUR / month plus 0.35 EUR per transaction. (Checkout Finland 2016.) This is an average price for such a service.

In fact, a platform such as theirs allows customers without cards and e-wallets to pay in installments via e-invoice services like Collector and SveaWebPay. As opposed to the given disadvantage of forcing to pay all at once with online bank transfer, a right payment gateway service provider can fix this problem by offering third party biller services.

However, it should be noted that PayPal is not included in the package, and should be acquired separately. The fee that PayPal takes for including their e-wallet payment possibility in an online store is 1.9 – 3.4 per cent + 0.35 euro per transaction. The percentage depends on monthly sales via PayPal. For example, an average of over 10,000 euro worth of sales via PayPal would cost 2.7 per cent + 0.35 euro per transaction for the merchant. (PayPal 2016.)

4 CASE STUDY

The case company in this thesis, referred to as Company X, is a Finland-based manufacturer and a globally operative company. It has a turnover of 1 million euros and exports approximately 90 per cent of its products. The company nor banks are not named, as no relation between companies and a bank can be disclosed.

Company X manufactures goods and mostly sells them directly to their final consumers, although they use resellers to some extent. Their typical customers are federations and private customers, as well as municipalities, schools, associations, states and armies. Their typical shipment is approximately 4 to 5 units.

4.1 Current situation

In order know where one is heading, it is important to determine the current position. This section narrates and analyses the case company's current situation and their aim.

At the moment of writing, Company X is planning to develop its online store. Its aim is to shift all sales to be carried out via the online store, i.e. with electronic payment systems. The aim of this study is to find out the possibilities in executing the development, and what their customers' opinions on this are.

4.1.1 Online store

Currently the case company has an online store. However when a customer makes a request to purchase a product the order goes to the company, they calculate the total cost, contact the customer via email about the price, send an invoice, and deliver the product after the invoice has been paid.

According to the director of operations in Company X (2016), this process has too many steps and takes too much effort. They want the website to calculate the price of the product and shipping by itself, and give the customer the possibility to pay instantly.

The sales director (2016) says that credit card payments would help to speed up foreign transactions, and PayPal would enable that even more. The possibility of credit card payments would also leave out the credit risk from the final consumer, which can have a positive effect on the customer's purchasing decisions.

4.1.2 Costs

The representatives from Company X contacted for this study had no access to the exact numbers of billing costs or credit losses. However, it is clear without saying that they do exist. Credit losses are nearly inevitable in large volumes of sales, and the risks enlarge when going global. Billing, too, comes with costs as it involves labour, paper work, fees and transaction costs.

The sales director from the case company estimates that they lose 15-30 euro from time to time on bank transfers at the moment. This loss comes from wrongly calculated currency exchanges from the customer's side, or bank fees from either end. They do as well experience credit loss from invoices left unpaid.

4.1.3 Payment methods

Currently customers pay via a variety of different methods. The majority are invoiced and they pay in euros via bank transfer. However, some still pay by cash on the spot or with a check. So far the company has not found a solution to redeeming payments from credit cards abroad. (Director of Operations 2016.)

Invoicing is a widely used and rather safe method of charging payments. However, it is something that the company wants to change since e-pay, credit card and e-wallet services seem to outweigh the advantages of invoicing. First of all, invoicing is significantly more time consuming, as the biller should give time for the payer to process the bill. Instant payment versus two weeks can sometimes make a big difference. (Bank specialist 2, 2016.)

Secondly, invoicing can create a conflict between the buyer and the seller, as they both usually want their compensation before giving anything away. The case company's representative says that this has been a major challenge for the company. They would rather have the money before sending out the product, but customers do not want to pay before receiving what they ordered. (Director of operations 2016.)

Invoicing also comes with a rather big credit risk. If the customer does not pay the bill, the company is justified to have the money collected. However, it is impossible to know when the money will be received, if ever. The risk is even higher in trading across borders as it is more difficult, sometimes impossible, to track down the payment that belongs to the biller. (Bank specialist 2 2016.)

Checks are the riskiest and possibly also the most expensive method of redeeming payments for the case company. Finnish corporate bank (Specialist 3 2016) instructs its customers to avoid check payments. The companies that receive payments are encouraged to ask their customers to pay invoices by payment orders instead of checks. The specialist 3 states that companies should never accept checks from a business partner they are not familiar with or when there is a country risk. (Specialist 3 2016.)

The specialist from a Finnish corporate bank (specialist 3 2016) says that checks are an extremely risky method of payments; they are too often let uncovered, can be forged or lost. The recommended alternative for check – a payment order - is significantly safer, faster and more favorable method of payment across borders. A payment order is an equivalent of a domestic bank transfer, yet the money travels across borders. Specialist 3 (2016) says that

their bank has been restricting the service of cashing checks in its branches. Their aim is to quit cashing all incoming foreign checks within few years.

Specialist (2) of daily operations from a Finnish bank (2016) says that cash payments are not a recommended method either, especially when operating abroad. In most countries cash is still a very popular method of payments in brick and mortar shops. When Company X is selling their products on the spot, e.g. in events and shows as they do now, many of the customers might want to pay in cash.

Carrying large amounts of cash, especially long distances from abroad, is risky. Also depositing the money in a bank costs an approximate 8 euro per deposit, depending on the amount. In addition, as in Company X's case, the currencies might vary as the sales are made in different countries. Exchanging currencies is costly, and awareness of currency risks is always good. (Specialist 2 2016.)

4.2 Survey

For this thesis, a brief survey was conducted for the case company's customers to find out how they like to pay their purchases and how would they feel about Company X's preferences. The survey was emailed to all 85 customers that the case company had email addresses for. It was emailed from Company X's email address, with an introduction explaining that they are developing their online store and have assigned a student to conduct research for it.

The questionnaire was short and simple, with just a few questions (Appendix 1). The respondents were differentiated into three different customer groups; personal customers, businesses, and associations. All together the questionnaire got 15 responses (17.6 per cent rate), 3 of which were personal customers, 8 were associations, and the remaining 4 businesses (Figure 1).

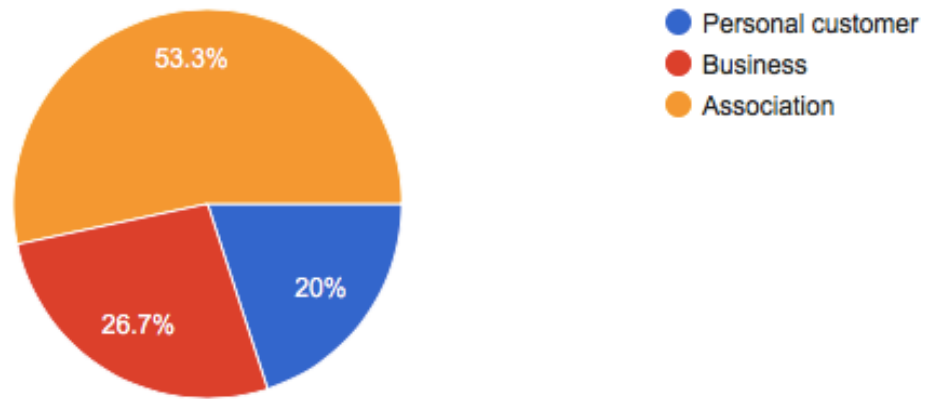


Figure 4. Customer groups out of all responses.

After the respondents fell into sections, the second question asked whether they buy products from online stores or would be willing to do so in the future. 73.3 per cent respondents answered yes, and 26.7 per cent said no. Out of the latter, two were businesses, one association and one personal customer.

The respondents were then asked which payment methods they currently use. It should be noted that instead of including the option *e-wallet* I used *PayPal*, as I trusted it to be a more well-known term. Furthermore, the respondents were given the possibility to choose as many options as they actually use.

As Figure 5 shows, invoice was the most used payment method out of all (53.3%). Credit card was the second most popular (40%) among the case company's customers, followed by bank transfer online (33.3%).

It seems that the respondents did not understand the term *e-pay*, and answered "other" instead. Hence, the percentage of bank transfer online comes from *e-pay* (13.3%) and other (20%). In the *others* section the respondents specified them to be bank transfers and a telegraphic transfer, which I classify as *e-pay*. Furthermore, four respondents (26.7%) use *PayPal*, and 13.3% cash.

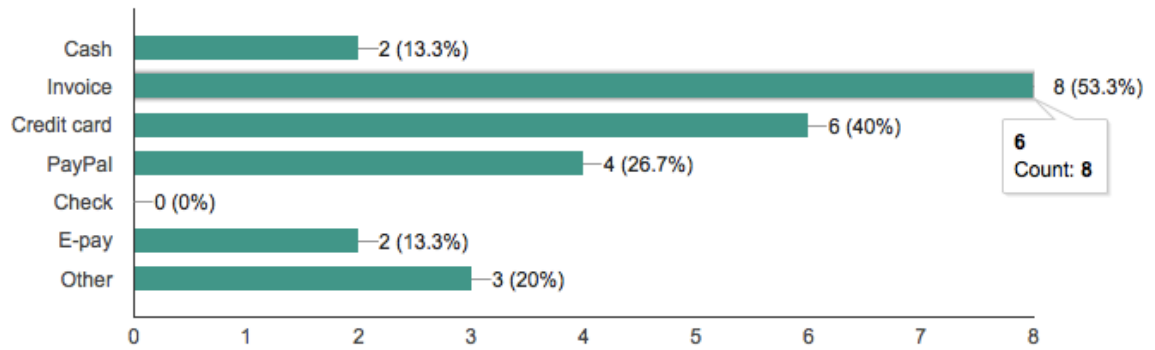


Figure 5. Current payment methods of the respondents (Possibility to choose several options).

Lastly, the respondents were queried whether they would prefer credit card and PayPal payments, as the case company aims to shift their money transactions to these services. Over half, 53.3 per cent, answered that they do prefer credit card payments, and 46.7 per cent would use PayPal. These are mainly the same respondents who would be willing to use both. Only two respondents who would not want to use credit cards prefer PayPal, and in opposition, three of the credit card payers would not want to use PayPal.

The respondents were asked to specify why they would not prefer either one of the given options. The given explanations for not wanting to pay with credit cards were that they do not feel secure enough, PayPal is safer, they do not own a credit card, or they prefer bank transfer. Moreover, one respondent answered that paying with a card or PayPal is difficult, as they do not have the legislation regulating the payment of legal entities.

Further explanations regarding PayPal payments were that they do not have an account, prefer credit card, it is not a regular payment type for them, and that they prefer online payment transfers. The questionnaire in whole with responses can be found from Appendices 1 and 2.

4.3 Analysis

First of all, it should be noted that majority of respondents would be willing to purchase products online. Six out of seven respondents that classified themselves as associations said to be willing to order online. Half of the business

customers said the same as did two-thirds of the personal customers. According to responses as well as Company X's director of sales (2016), luckily the majority of their customers are associations.

However, one-fourth is a notable percentage of those current customers who would not want to order online. In fact, out of all customer's 25 per cent is such a large share, that according to these results a complete switch to only e-commerce would result in a major loss of customers. Whether the development of the online store for better would bring more customers is a whole another question.

Half of the respondents answered to be currently using invoice and bank transfer as their preferred method of payments. Only one of those respondents answered that they would not be willing to purchase products online. Hence, it could be reasoned that the rest might be willing to use direct bank transfers online to pay for their purchases.

Nearly the other half (43 per cent) said to be purchasing products with credit cards or e-wallet. These are the ones in favour of the case company's online store development. One of the respondents paying with credit card would not, however, be willing to use an online store for ordering and purchasing products. I would assume that this customer is one who is currently buying the products directly from a dealer. The one respondent only paying in cash must be as well.

When comparing the questions about the usage of credit cards and PayPal, cards seem to be more favourable. Mostly the respondents who preferred to be paying with PayPal would also be willing to pay with credit cards. One business customer and one private customer preferred PayPal, as for them it seems safer than credit cards. Alternatively, one of the credit card payers said the exact opposite. However, here the most important finding is that the customers would be willing to pay with either one of the methods.

For associations the largest issue seems to be the difficultness to acquire credit cards or PayPal accounts. Quite possibly their operations are so controlled by the federations. This is only a guess, though. However, as 86 per cent of the

responded associations would be willing to purchase online and pay with online bank transfer. Not having cards or e-wallets is not a big issue.

5 CONCLUSION AND RECOMMENDATIONS

All things considered, I believe that Company X should indeed develop their online store and switch sales to a more swift mode of e-commerce. It costs, but so does their current way of dealing with orders. Unfortunately, I do not have the exact numbers of their current costs or sales volume, and thus cannot calculate whether they would save with the change. But, as the company representatives emphasised, their aim would make it more effortless to process orders and more safe to deal with payments.

Company X should consider how they want to handle that one-fourth of their current customers that are not willing to purchase online. Whether those are the customers paying in cash or contacting them via phone or email, they need different payment methods than the ones offered online, i.e. if Company X is willing to compromise even though all sales are supposed to be shifted to e-commerce.

If, and most probably when, those customers are kept, I would recommend the company to at least drop all cash and check payments, continue invoicing and in addition find a solution for credit card charges abroad. Hence, prioritize e-commerce payments, but do not completely drop invoicing.

In addition to card, PayPal, and online bank transfers, I would advise Company X to look into those third party billers that would take care of the invoicing as well. These can often be included in the payment gateway packages. The seller will receive full payment instantly, but customers can pay in instalments. Most importantly, the service provider will take the credit risk.

All said, go for the change. E-commerce sales will enable more market reach than ever before. Improving the online store will make purchasing easier and simpler for customers, and more effortless for Company X. Last but not least, e-commerce payments are reliable, safer than paper money and faster than invoicing.

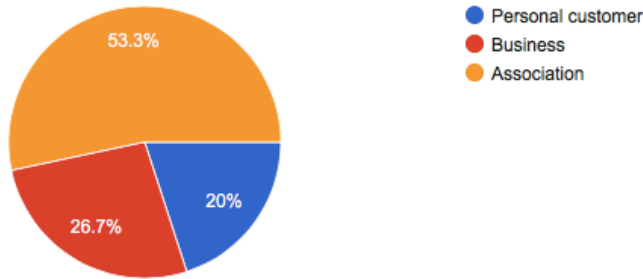
REFERENCES

- Athey, S. 2016. 5 ways digital currencies will change the world. World Economic Forum (12 July 2016) <https://www.weforum.org/agenda/2015/01/5-ways-digital-currencies-will-change-the-world/> (15.7.2016)
- Checkout Finland 2016. Palvelupaketit <http://www.checkout.fi/verkkokauppiaalle/palvelupaketit/> (30.6.2016)
- Company X, Director of Operations. Interview 14.4.2016
- Director of Operations and Head of Sales. Company X. E-mail interview 30.6.2016
- E-Commerce Payment Systems. 2016. http://www.tutorialspoint.com/e_commerce/e_commerce_payment_systems.htm (12.7.2016)
- Federation of Finnish Commerce. 12.3.2015. Tavaroiden Verkkokauppa Kasvaa Taantumasta Huolimatta http://kauppa.fi/ajankohtaista/tiedotteet/tavaroiden_verkkokauppa_kaasvaa_taanumasta_huolimatta_24784 (28.6.2016)
- GSX Inc. 2016 What is EDI (Electronic Data Interchange)? <http://www.edibasics.com/what-is-edi/> (12.7.2016)
- Miva, Inc. October 26, 2011. The History of E-Commerce: How Did it All Begin? <http://www.miva.com/blog/the-history-of-ecommerce-how-did-it-all-begin/> (5.9.2011)
- Official Statistics of Finland (OSF): Use of information and communications technology by individuals [e-publication]. ISSN=2341-8710. 2015. Helsinki: Statistics Finland (28.6.2016) http://www.stat.fi/til/sutivi/2015/sutivi_2015_2015-11-26_tie_001_en.html
- Official Statistics of Finland (OSF): Use of information and communications technology by individuals [e-publication]. ISSN=2341-8710. 2012. Helsinki: Statistics Finland (28.6.2016) http://www.stat.fi/til/sutivi/2012/sutivi_2012_2012-11-07_tie_001_en.html
- OP Osuuskunta 1.12.2011. OP-verkkopalvelut 15 vuotta <https://www.op.fi/op/henkiloasiakkaat/opastus/op-verkkopalvelut-15-vuotta?cid=151605632&srcpl=3> (6.9.2016)
- PayPal. 2016. Fees. https://www.paypal.com/fi/cgi-bin/webscr?cmd=_display-fees-outside (1.8.2016)
- Pennala, R. June 2015. Content Marketing and Supplier Selection in the Electronic Payment Service Industry. Karelia University of Applied Sciences <http://urn.fi/URN:NBN:fi:amk-2015060512521> (1.8.2016)
- Specialist n:o 3. Finnish corporate bank. Interview 16.6.2016
- Specialist of daily operations n:o 1. Scandinavian Bank. Interview 14.6.2016
- Specialist of daily operations n:o 2. Finnish Bank, Interview 16.5.2016
- Statista 2016. B2C e-commerce sales worldwide from 2012 to 2018 (in billion U.S. dollars) <http://www.statista.com/statistics/261245/b2c-e-commerce-sales-worldwide/> (5.7.2016)

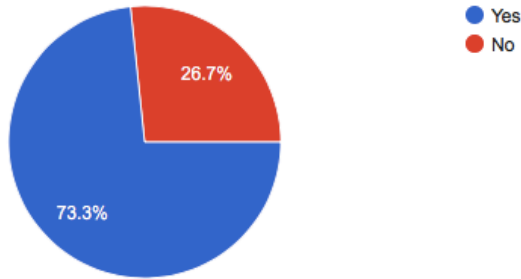
- Statista 27.6.2013 Global E-Commerce Sales to Reach \$1.2 Trillion This Year
<https://www.statista.com/chart/1223/global-e-commerce-sales-2013/>
(29.6.2016)
- The Michael Aldrich Archive. 2011. Inventor's Story
http://www.aldricharchive.com/inventors_story.html (6.9.2016)
- TNS 2015, Federation of Finnish Commerce, the Finnish Direct Marketing Association - Finnish E-Commerce 2014 (28.6.2016)
<http://kauppa.fi/content/download/83572/1071402/file/Verkkokauppatilasto%202014.pdf>
- Woolsey, B. & Gerson, E. (2016). The history of credit cards. Creditcards.com.
(10 July 2016) <http://www.creditcards.com/credit-card-news/credit-cards-history-1264.php> (12.7.2016)
- WorldPay. November 2015. Global Payments Report Preview
<http://offers.worldpayglobal.com/rs/850-JOA-856/images/GlobalPaymentsReportNov2015.pdf> (5.7.2016)

Questionnaire

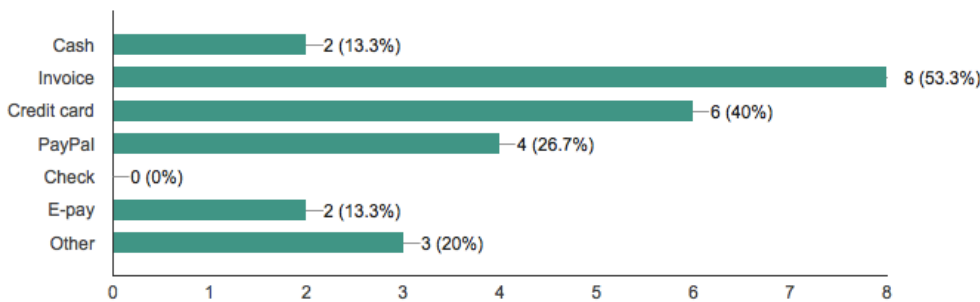
Are you buying Eko-Aims products as a (15 responses)



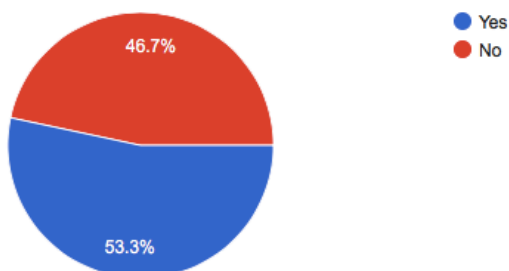
Do you buy products from online stores OR would you be willing to do so (15 responses)



Which payment methods do you use (Choose as many as you like) (15 responses)



Do you prefer credit card payments (15 responses)



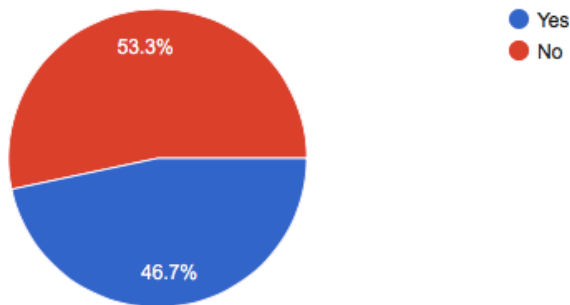
Questionnaire

If you answered "No", please state why. If you answered "Yes", continue to the next question

(6 responses)

it is difficult from our company (we do not have legislation regulating the payment of legal entities)
Bank transfer online
Equipment for an association and it does not use a credit card
I think the credit card is not secure
Paypal is safer
Sport Club, without credit card

Do you prefer PayPal payments (15 responses)



If you answered "No", please state why. (7 responses)

it is difficult from our company (we do not have legislation regulating the payment of legal entities)
Transfer online
International transfers for all purchases. PayPal not available
It is not a regular payment type for me
same
no account
Prefer credit card

APPENDIX 2

Are you buying Eko-Aims produc	Do you buy products fr	Which payment methods d	Do you prefer credit ca	If you answered "No", please state why. If you answered "Yes", continue to the next que	Do you prefer PayPal p	If you answered "No", please state why.
Business	No	Cash	Yes		Yes	
Business	No	Invoice	No	it is difficult from our company (we do not have legislation regulating the payment of legal entitie	No	it is difficult from our company (we do not have legislation regulating the payment of legal entitie
Association	Yes	Cash, Invoice, Credit card	Yes		Yes	
Association	No	Invoice	No		No	
Association	Yes	Bank transfer	No	Bank transfer online	No	Transfer online
Association	Yes	Invoice, E-pay	No	Equipment for an association and it does not use a credit card	No	International transfers for all purchases, PayPal not available
Business	Yes	Credit card, Bank transfer	Yes		No	It is not a regular payment type for me
Personal customer	No	Credit card, PayPal	No	I think the credit card is not secure	Yes	
Business	Yes	Invoice, PayPal	No	Paypal is safer	Yes	
Personal customer	Yes	Credit card, PayPal	Yes		Yes	
Association	Yes	Invoice	No	Sport Club, without credit card	No	same
Personal customer	Yes	Invoice, Credit card	Yes		No	no account
Association	Yes	Invoice, E-pay	Yes		No	Prefer credit card
Association	Yes	Telegraphic Transfer	Yes		Yes	

Breakdown

Email interview

- Can you tell me about EcoAims' customer base? How much do you export, where, what are the volumes usually, etc.
- * Customers: We are mostly dealing directly with Sport Federations but we also sell directly to customers and through our resellers.
- * We export around 90% of our product outside of Finland.
- * Typically shipments of laser equipment average around 4-5 units.
- * Muita asiakasryhmiä Suomessa: reserviläiset, kunnat, koulut, metsästys- ja urheiluseurat, valtio/armeija.

- Regarding the payment transactions, what is your current situation like? (incoming)
- * For most of our customers we require Full Prepayment to our bank account, before we can delivery any items. (= pankkisiirto)
- * Käytämme myös verkkolaskutusta suomalaisille asiakkaille.

- Why and how do you want to improve and develop it now?
- * Credit card payment would sure help speed up our foreign transactions. We could also look into Pay pal (if it was secure).
- * Verkkokauppa ei "suju" jos pitää odottaa pankkisiirtoa. Verkkokaupassa pitää näkyä lopullinen hinta sis. kuljetuksen kustannus, ja maksu heti luottokortilla.
- * Luottokorttimaksu = loppuasiakkaalla ei ole riskiä, helpottaa ostamispäätöstä verkkokaupassa.

- Within the last couple of years have you received payments in cash, checks and other currencies than euros?
- * Usually we are only accepting Euro, but we have allowed US dollars from time to time when traveling in other countries.

- Can you estimate the current cost of receiving payments from customers? (cost of invoicing, deposits, credit loss etc. per month to year)
- * It is a 100% guess at this time, but we do loose 15€ -30€ from time to time on bank transfers, but these are typically on customers who are paying full price. We probably loose 300-500€ in short payments received.

- Have you encountered challenges in receiving payments or delivering products to some specific countries?
- * All the time, many countries can't send out payments without contracts or without being taxed extensively and receiving our type of products can be very difficult as they look like real weapons.