Buy Now Return Later

A quantitative study of how B2C invoices in the context of e-commerce impact product returns.

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ABSTRACT

B2C invoices have grown to become the most preferred payment method of Swedish online shoppers. Despite invoices' considerable popularity, research about their consequences is scarce. A survey based study has been conducted in order to investigate how the growing trends of B2C invoice and product returns interplay. The study provides empirical evidence to the increase in product returns for purchases made using invoice. Additionally, the study investigates the impact of the payment method on customers' pain of payment, involvement, perceived product quality and satisfaction, where customers' perceived product quality is found to be lower for invoice users. The results from the study is a first attempt to address the impacts of invoice as an online payment method on consumer behaviour. At the same time, the study opens the door for future research that could contribute to lowering return frequencies and impacting how customers' perceive purchases made online.

Keywords: Direct payment method, deferred payment method, product return, invoice, pain of payment, involvement, perceived product quality, satisfaction, B2C

FOREWORD

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..for your endless support.

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1. Introduction

1.1 Background

The retail industry is in an age of significant change. During 2019, Sweden reached e-commerce sales of SEK 87bn, a 13% growth from the previous year (PostNord et al, 2020). As e-commerce is growing, new payment methods are entering the market, making point of sale more adapted to different customer needs (PostNord et al, 2020; Schreft, 2005; Shah, 2015). The question is, how do these new payment methods affect customers using them?

The majority of modern payment methods such as Swish, PayPal, Direct Payment and debit cards, together referred to as "direct payment methods", allow customers to make instant transactions. On the contrary, B2C invoices represent the other side of the spectrum, offering customers to defer the transaction. Since B2C invoices have entered the market, these have become immensely popular with as much as every third consumer rating invoices as their favorite payment method (PostNord et al, 2020). Not only do they allow convenience deferring payments, but make refunds easier than direct payment methods. According to Morgan Sellén (CEO of Verifone Sweden), the popularity of paying by invoice is partly due to customers being able to receive products before having to pay for them. As customers sometimes crave products they cannot afford at the time of the purchase, invoices allow customers to make purchases without having to pay for them at the point of sale (Sierakowiak, 2018). Could it be that the possibility of simply pausing invoices and not having to bear through a transaction at the point of sale, allow customers to buy more and consequently return more?

1.2 Problem area

While consumers' appetite for online purchases is shaping the new shopping norm, so are product returns. It is estimated that 15% of items bought online are being returned, a phenomenon that has grown in recent years (PostNord, 2019). While some retailers argue that product returns are good for business as they are a result of increased sales and higher market

shares (Borglund, 2019), others describe them as rather problematic (PostNord et al, 2020), due to their negative effect on profitability and the environment (PostNord et al, 2020). An industry example is fashion retailer Boozt, who in the recent year decided to ban customers with high return frequencies. Similar initiatives have been taken by Asos and it can be expected that other retailers will follow (PostNord et al, 2020).

As a consequence of the competitive market, many online retailers offer free deliveries, free returns and convenient payment solutions such as invoices to decrease barriers to purchase and increase conversion rates (PostNord et al, 2020; Borglund, 2019; Klarna and Shopify, 2019). While lenient return policies and their effects on product returns have been heavily researched (Gelbrich et al, 2017; Wood, 2001; Lee, 2002; Ramanathan, 2011), less focus has been dedicated to the consequences of payment methods and its effects on product returns.

Despite the growing popularity of invoice as an online payment method, there is a current gap in existing literature on the subject. Potential consequences of invoices could provide important insights to the world of e-commerce. While it is assumed that invoices may have an effect on product returns (PostNord, 2019), could it also be that this new payment method has other, undiscovered effects?

1.3 Purpose and research question

The primary purpose of this study is to examine whether invoice as an online payment method in the B2C context affects product returns. Accordingly, the research question of the study is:

How do invoices affect product returns compared to direct payment methods?

While there is value in understanding the above relationship, this paper aims at advancing the understanding of how invoices influence consumers. In addition to the main research question, the study will examine additional variables connected to payment methods; pain of payment and

involvement, as well as perceived product quality and satisfaction; often mentioned in the context of product returns.

Hence, the secondary purpose of the study is to answer;

How do invoices affect pain of payment, involvement, perceived product quality and satisfaction, compared to direct payment methods?

1.4 Expected research contribution

Since invoices in the B2C context is a relatively new phenomenon, this thesis seeks to contribute to existing literature on payment methods by addressing invoices' effects on online shoppers. By focusing on both behavioural and opinion variables, the study aims to inspire future research on how these interplay with invoices and other, modern payment solutions.

As invoices are often spoken of in the context of increased conversion rates and sales, the aim of this thesis is to uncover potential downsides in order for retailers to make more informed decisions about their payment method offering. It is hoped that the results of the study will challenge and help retailers to shape their point of sale in accordance to their own prerequisites. Furthermore, the study hopes to contribute with actionable advice on how retailers can address challenges associated with invoices in order to better control product returns and customers' perception of products bought online.

These contributions will be based on a survey based study in order to measure actual purchases of real online shoppers, in order to capture real life effects of this new payment method.

1.5 Delimitations

The primary delimitation concerns the scope of comparing invoices to direct payment methods. The reason for delimiting the study to invoices as the only deferred payment method, is that invoices for online B2C-sales are a relatively new concept and have received little attention in

previous literature. The direct payment method refers to the most commonly used payment methods in Swedish e-commerce where the transaction happens simultaneously with the purchase (PostNord et al, 2020). For the purpose of this study, these payment methods are grouped in order to compare invoices to payment methods where the negative cash flow immediately shows up on the balance as a purchase is made.

The study aims to measure general trends in a new field of research which translates into investigating bigger relationships across the industry, excluding groceries and services as these are usually or can not be returned. Gifts are also excluded as these are not consumed by the customer. The reason for studying the majority of e-commerce rather than one specific product category is to be able to conclude whether the results can be generalised across the industry. Additionally, the study is delimited to Swedish customers.

1.6 Disposition

The report begins with the theoretical framework together with the formulation of hypotheses. The following section concerns the methodology of the study, followed by presenting the study's results. The next sections of the paper covers the discussion and conclusions. Lastly, the study's practical implications followed by limitations and inspiration for future research are presented.

2. Theoretical framework and hypotheses formulation

This section will present two lines of previous research concerning payment methods and product returns, in order to examine how these interplay. Thereafter, research on pain of payment, involvement, perceived product quality and satisfaction will be presented in order to examine additional effects of invoices as an online payment method.

2.1 Previous research on payment methods

As e-commerce is growing, the number of new payment methods offered by online retailers is increasing as well. According to PostNord et al (2020), the most popular payment method of Swedish online consumers are invoices (33%) followed by bank cards (24%) and Swish (15%). In the context of B2C e-commerce, an invoice is offered to consumers as an option to first receive the parcel and then pay at a later point. Hence allowing the customer to touch and try the product before the monetary transaction occurs. The terms and conditions can vary between vendors in terms of when the liability needs to be set. However, the concept is uniform: buy now pay later.

Despite the growing popularity of invoice as payment method, little research has been done on the impact of invoices on consumer behaviour. However, there is more literature dedicated to the differences between cash and card payments. According to a study by Hirschman (1979), there are differences in consumer behaviour based on the usage of either cash or non-cash payment methods. Hirschman (1979) emphasises how consumers using bank- and in-store cards increased their overall spending in contrast to cash spenders. Additional studies on the subject have confirmed that individuals using bank cards have a tendency to spend more (Greenacrea and Akbarb, 2019; Hafalir and Loewenstein, 2009; Feinberg, 1986; Prelec and Simester, 2001). Research by Yao and Chen (2014) compared consumer behaviour when paying with cash versus consumers paying by gift cards. According to the study, the group using gift cards, in contrast to those using cash, experienced a change to their typical shopping habits. Amongst other effects,

the subjects found themselves making more spontaneous purchases and deviating from their original shopping plans.

Accordingly, previous research has found that different payment methods affect customer behaviour. Although research on invoices is scarce, they are said to increase customer spending more than various direct payment methods, including debit- and credit cards (Deufel and Kemper, 2018; Klarna and Shopify, 2019).

2.2 Previous research on product returns

To the best of the authors' knowledge, most literature on product returns has focused on problems around the items rather than flexible payments. Focus has been placed on customers' satisfaction with the product itself as well as product failure and quality issues (Lee, 2015; Borglund, 2020). According to Lee (2015), the overall product quality of retail goods have improved in recent years contradicting that decreased product quality would be the main reason behind growing returns. Another reason for product returns argued by Lee (2015) and Borglund (2020) is customers' fraudulent intent. Business professionals within the clothes and shoes sector have observed that consumers often order multiple fits and sizes knowing that some of these will be returned prior to arrival (PostNord et al, 2020).

There is no established explanation for the growing trend of product returns. However, industry experts are suspecting new payment methods such as invoices and lenient return policies to be the potential underlying drivers (PostNord et al, 2020; PostNord, 2019). Lenient return policies are referred to as the possibility to return products more conveniently (Gelbrich et al (2017) through e.g. free returns offered for longer time periods (Wood, 2001; Lee, 2002; Ramanathan, 2011). While their benefits are argued to reduce consumers' perceived risk and consequently increase consumer spending (Hjort & Lantz, 2016), the problems imply growing product returns (Wood, 2001).

In an experiment conducted by Hjort and Lantz (2012) it was established that lenient return policies increase e-commerce sales but also decrease profitability. The consequences of making the process free and simple has led to customers increasingly choosing product returns as a strategy for postpurchase dissonance and dissatisfaction (Lee, 2015). Despite this, retailers use lenient return policies based on the belief that these will lead to an increase in purchases that exceeds the costs of returns (Janakiraman et al, 2016).

While lenient return policies enable a lower perceived risk of the return process, invoices enable effortless and risk free refunds through the ability to pause and cancel deferred transactions of items being sent back. No money has to leave the customers' bank account nor be transferred back from the retailer (PostNord, 2019). To conclude, it is argued that invoices create further convenience after lenient return policies in reducing customers' perceived risk of an online purchase (PostNord, 2019; Borglund, 2019).

In addition to the monetary costs, another negative effect of product returns concerns parcel transports. As the process releases greenhouse gas emissions, the topic has become increasingly important and more frequently discussed within the industry (PostNord et al, 2020). The customer gets the parcel delivered, then returns it and the travel routes are doubled. As sustainability concerns more and more customers and businesses each year (PostNord et al, 2020; Folkö, 2018), the aspect of product returns are important in regards to both profitability and sustainability.

2.3 System of hypotheses

2.3.1 Product returns

The existence of a payment method assumed to increase customer spending more than traditional payment methods sounds very positive from the perspective of a retailer. However, if this increased consumer spending leads to a higher share of product returns, the final effect could be more problematic. Instinctively, consumers who purchase more also return more (Petersen and

Kumar, 2009). While invoices enable easy refunds where no money has to leave the customers' bank accounts nor be transferred back, they add additional convenience to the often already smooth return process (PostNord, 2019). The first hypothesis states:

H1: Customers paying by invoice return more products compared to customers paying with direct payment methods.

2.3.2 Pain of payment

According to Raghubir and Srivastava (2008) the reasons why individuals spend more money when exposed to more abstract payment methods such as payment cards is due to human mentality and pain of payment. Pain of payment is defined as the negative feeling one experiences from the monetary loss at the point of transaction. As the physical experience of handing over one's cash disappears with the use of digital payment methods, the pain of the actual transaction is reduced (Prelec and Loewenstein, 1998; Shah, 2015). It is proposed that customers using more abstract payment instruments experience an enhanced hypothetical distance from the negative cash flow. The actual event becomes more abstract and the feeling of the actual payment less realistic (Chen et al, 2017). Using a card has an effect of diminishing loss aversion making the transaction easier to stomach (Prelec and Loewenstein, 1998; Prelec and Simester, 2001) and thus, resulting in reduced pain of payment compared to concrete cash.

Invoice as a payment method could be compared to paying with cards, as both are non-cash and more abstract payment methods in comparison to physical banknotes and coins. However, in contrast to bank cards and other direct payment methods, invoices do not need to be paid immediately or show up on a credit- or debit card statement at the point of sale. Consumers who use invoices at checkout are therefore expected to experience an even greater distance from the negative feeling of the transaction and hence further decrease the pain of payment (Shah, 2015). Accordingly, it is expected that:

H2: Customers paying by invoice have lower pain of payment than customers paying with direct payment methods.

2.3.3 Involvement

Involvement is defined by Zaichkowsky (1985) as "a person's perceived relevance of the object based on inherent needs, values, and interests". More specifically, this study refers to the purchase decision involvement defined as "the extent of interest and concern that a consumer brings to bear upon a purchase decision task" (Banwari, 1989). As a customer puts in effort to make the pain of payment worth the chosen alternative, it can be argued that (s)he becomes more involved in making the right decision.

It should be noted that involvement is a multidimensional phenomenon. A person can be involved in different aspects of a purchase; product type, brand, specific product, the retailer selling it, etc. It is difficult to categorise products or purchases as low or high involvement as these are rather subjective to each customer (Söderlund, 1998, p.53-54). What causes the grade of purchase decision involvement is suggested to be explained by the importance of the product, the perceived risk, the emotional appeal and how the product is associated with norms of a group (Assael, 1987, p.83). Independently of other product specific factors, the customer is taking a smaller risk ordering and paying by invoice compared to e.g. debit card. The perceived risk that according to Assael (1987, p.83) affects level of involvement, could concern both the monetary factor of transferring money prior to seeing and evaluating the product as well as the mental risk of following up on a refund (Borglund, 2019). Hence, it is believed that:

H3: Customers paying by invoice have lower involvement than customers paying with direct payment methods.

2.3.4 Perceived product quality

The gap between perception and reality leads to varying perspectives on quality. It is therefore important to note that this study refers to perceived product quality as a definition of one's judgment about a given product. This definition is distinguished from objective quality, which

refers to predetermined ideal standards of a product and its verifiable superiority (Hazen et al, 2017; Tsiotsou, 2006).

Actors within the industry have identified low quality as one of the dominating reasons for product returns (Borglund, 2019) together with lenient return policies (PostNord et al, 2020; PostNord, 2019). According to Wood (2001), lenient return policies could indicate higher quality. The customer believes that given the risk the retailer is taking offering easy returns, the retailer demonstrates confidence in the product, increasing customer expectations. However, if the customer receives the item and experiences a gap between the expected and perceived quality, the negative experience leads to product returns (Wood, 2001). Accordingly, understanding factors affecting customers' perceived product quality is of considerable importance for retailers in order to control product returns.

According to Soman (2003), abstract payment methods with a lower pain of payment affects how shoppers perceive the price of a product. At the same time, there is evidence that perceived price is closely related to perceived quality (Scitovsky, 1944; Stiglitz, 1987). It is hence assumed that products bought with a lower pain of payment will lead to lower perceived quality. Accordingly, the assumption that products bought with a lower pain of payment will lead to lower perceived quality is made. Given how invoices decrease pain of payment and consequently perceived product quality, it is suggested that:

H4: Customers paying by invoice have lower perceived product quality than customers paying with direct payment methods.

2.3.5 Satisfaction

While customer satisfaction has been defined in various ways, scholars have not yet agreed upon a generally accepted definition (Tsiotsou, 2006). The definition that appears to have had the widest acceptance is that satisfaction is a post-choice evaluative judgment of a specific transaction. Other definitions include that satisfaction can be viewed as an overall feeling

(Fornell, 1992; Tsiotsou, 2006).

Additional research has found that consumers with a high product satisfaction will have a low desire to return the product (Maity and Arnold, 2013). Research on consumer product returns has strengthened this statement by identifying product dissatisfaction, failure, and fraudulent intent as primary causes for product returns (Lee, 2015). Accordingly, customers tend to return products that they are not satisfied with, suggesting a negative relationship between product satisfaction and intentions to return. Understanding factors that affect satisfaction has become increasingly important as it is a variable important in many aspects. Prior studies have connected customer satisfaction to various other reactions such as repatronage intentions and word of mouth (Söderlund, 2005), meaning that dissatisfied customers will lead to other long-term effects in addition to a potential increase in product returns. Understanding what factors that affect customer satisfaction is hence of importance to study.

Previous research has found that product quality has a positive effect on customers' satisfaction (Jahanshahi et al, 2011). In a study made by Tsiotsou (2006), perceived product quality was identified as one of the primary moderators of satisfaction, followed by involvement. Perceived product quality and involvement can hence be used as predictors of consumer satisfaction, meaning that the higher perceived quality or the more involved a consumer is with the purchase, the higher his or her satisfaction with the product will be (Tsiotsou, 2006). Hence, leading us to the assumption that lower perceived product quality or level of involvement, will lead to lower satisfaction. Accordingly, it is suggested that:

H5: Customers paying by invoice have lower satisfaction than customers paying with direct payment methods.

3. Methodology

3.1 Choice of research subject

The negative trend of product returns has been frequently debated as it has increased in recent years. This phenomenon is a challenge as returns are both costly and environmentally unsustainable (PostNord et al, 2020; Folkö, 2018).

The chosen subject was based on the authors' perceived convenience returning products bought online, especially since new payment methods and invoices in particular have entered the market. To the best of the authors' knowledge, there is limited research on how invoices affect customer behaviour, although these insights could prove important in helping the industry better understand the consequences of their payment methods offering.

Considering the popularity of invoices (PostNord et al, 2020), it was realised that this new form of online payment may have additional effects on customers that are of importance to both academics and retail practitioners. As previous literature on payment methods is closely connected to the customers' pain of payment and involvement, and while customers perceived product quality and satisfaction has been addressed as the main reasons for product returns, it became of additional interest to examine these variables in the context of this study.

3.2 Choice of research object

Since the subject of this report covers a new field, the aim was to measure the broader picture and to identify potentially new, growing phenomena, in order to provide a foundation for future research focused on the attributes of individual sectors. The spectrum of product categories was chosen based on the aim to study broader e-commerce trends applicable across sectors and products, in line with earlier research on Swedish e-commerce patterns on the chosen subjects (PostNord et al, 2020). The respondents in the study were asked to recall one product from their latest received online purchase, excluding gifts, services and grocery shopping as these have

deviating characteristics that could have potential effects on the relationships measured. Gifts were excluded due to the purchase being for another person than the customer, which moderates other feelings and behaviours compared to purchases for oneself (Sherry, 1983; Petersen & Kumar, 2009). Services were excluded as these cannot be returned or evaluated on the same basis as physical goods. Lastly, grocery shopping was excluded as these are not considered to be returned to the same extent as other product categories (PostNord et al, 2020). Further, it was important to make sure that all respondents had received their item, in order to have the chance to evaluate their purchase.

Out of the two groups compared in the study, the invoice group consists of invoice users alone as this is the main focus of the research question. The second group referred to as "direct payment method" consisted of respondents using debit card, Swish, PayPal and direct payment. It should hence be noted that direct payment is a specific payment method and is one of several options within the direct payment methods group. The direct payment methods were compiled as these share similar characteristics in terms of time of payment compared to the deferred payment of invoices.

3.3 Research approach and method

The quantitative research strategy uses a deductive approach developing hypotheses based on prior theory. The strategy further allows statistical analysis of larger sets of quantifiable data, yielding results that could be attributed to larger populations (Bryman et al, 2015, p.37-38). As the authors of this paper were able to formulate hypotheses from existing theory and research, a quantitative method was considered the most suitable. Furthermore, given the aim of the research question investigating general trends for a larger population, the quantitative research strategy was chosen.

3.4 Pre-study

3.4.1 Pre-study design

To ensure internal validity, a pre-study was conducted to control that respondents understood the payment methods described in the instructions (Aidley, 2019, p.88-89).

The pre-study consisted of two sets of introductory scenarios. The respondents were presented with a shopping situation where one group had to pay using invoice while the other group paid by a direct payment method. On the following page, the respondents were presented with two procedural questions (Aidley, 2019, p.74) inspired by Zellermayer (1996) to control their perception of the payment form they were instructed to consider. The first question "Is the payment done now or after receiving the product?" was answered on a nominal scale of 1 = Now, 2 = At a later point. The second question "I will receive the product before the payment follows through?" used a nominal scale of 1 = Agree and 2 = Disagree.

Two sets of demographic questions were asked to examine the composition of the sample (Aidley, 2019, p.62). Respondents were asked to answer "I identify myself as" (female, male, non-binary or do not wish to disclose) and "How old are you" (open question) (Aidley, 2015, p.72-73, 76).

3.4.2 Sampling

Responses were recorded between 16 - 20 March 2020 and answered by 60 people in the authors' network collected through convenience sampling (Saunders et al, 2009, p.241). Out of the respondent sample 60.0% consisted of females and 40.0% were male, following the anticipated trend of female overrepresentation in the group using invoice (Deufel and Kemper, 2018). The percentage of females was higher within both groups where the invoice scenario had 61.3% female respondents compared to 58.6% in the group using direct payment methods. For the males, the invoice group and direct payment group showed 38.7% and 41.4% respectively.

No respondents identified themselves as non-binary or wished to not answer the question (Table 1).

The sample consisted of the majority of respondents in the age 20-29 for both groups (81.7%). The same age span represented 87.1% for respondents with the invoice scenario compared to 75.9% in the direct payment scenario. Although the gender and age distribution does not represent the Swedish population, it does resemble the pattern of e-commerce shoppers where women and younger individuals are overrepresented (Table 1) (PostNord et al, 2020).

Table 1
Demographic characteristics for the participants in the pre-study.

Demographic characteristic		Total		Invoice		Direct Payment Method	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender	Male	24	40.0%	12	38.7%	12	41.4%
	Female	36	60.0%	19	61.3%	17	58.6%
Age	<20	2	3.3%	1	3.2%	1	3.4%
	20-30	49	81.7%	27	87.1%	22	75.9%
	31-40	0	0.0%	0	0.0%	0	0.0%
	41-50	5	8.3%	0	0.0%	5	17.2%
	51-60	3	5.0%	2	6.5%	1	3.4%
	>60	1	1.7%	1	3.2%	0	0.0%

n = 60

3.4.3 Results

The results of the pre-study indicate that the respondents had a sound understanding of the payment methods they were instructed to use. For the group paying by invoice 90.3% answered correctly to both questions. For the direct payment method 93.1% answered correctly on both questions. The results demonstrate that individuals have a generally good understanding of which payment method they use and what these indicate in terms of time of payment. In order to address the minority of respondents who did not understand the instructions or the payment method introduced, a control question was added to the main study in order to identify these.

3.5 Main study

3.5.1 Study design

In order to analyse customers' actual feelings associated with the purchase, a survey was considered the best option providing consistency across respondents (Floyd & Fowler, 2014, p.3). The survey aimed to see how invoices compared to direct payment methods affect product returns and measure the impact on additional factors such as pain of payment, involvement, perceived product quality and satisfaction. To compare the two payment methods, the study consisted of two surveys with the same questionnaire but two separate instructions to recall a purchase done using either invoice or a direct payment method.

3.5.2 Survey design

Each respondent was initially introduced to the survey through a general message thanking for participation as well as a presentation on the purpose of the study. The respondent was presented the estimated time of taking the survey, the anonymity of the answers and the name and contact details of the authors. By pressing next, the respondent entered one of the two introductions where the respondent was asked to recall the latest online purchase made using either invoice or a direct payment method. The respondent was asked to think of one item bought for him- or herself where the product had already been received, in order to make sure that respondents based their responses on the same prerequisites. Gifts, services and grocery shopping were asked to be excluded. The respondent was informed to carefully read the instructions, to emphasise the importance of understanding the information provided.

The first section focused on the purchased item and different constructs associated with the purchase. The second part consisted of questions concerning payment method, including the control question of which payment method the respondent used and why. The last section consisted of demographic questions where respondents were asked to fill out their gender, age and annual income as well as a final control question testing the respondents' attention.

Before the questionnaire was distributed it was pretested on ten people in order to get feedback on the survey length, to make sure that respondents interpreted the questionnaire correctly and to get general feedback on the survey design. Improvements were made accordingly before the official distribution (Aidley, 2019, p.58).

3.5.3 Measures

The majority of questions in the questionnaire consisted of forced choice questions as these allow for answers to be predetermined and easier to compare. The rating and matrix questions were answered on a numerical rating scale to allow respondents to express their thoughts and emotions towards a given statement (Saunders et al, 2009, p.378-379). Measurement scales were used in order to capture different dimensions of concepts (Aidley, 2019, p.59). One question was presented as a quantity question for respondents to be able to answer on a wider scale (0-100%) (Saunders et al, 2009, p.382). Several questions were presented as list questions in order to provide a predetermined set of possible answers. Lastly, the survey consisted of one open numerical question where the respondent was asked for his/her age (Saunders et al, 2009, p.375).

To avoid potential misinterpretations and to ensure that all variables measured what they were intended to, the majority of constructs have been measured with scales used or validated in previous studies and research (Aidley, 2019, p.59). To ensure internal reliability for multi-item measures, Cronbach's alpha was measured for each scale. Cronbach's alpha varies between 1 (perfect internal reliability) and 0 (no internal reliability), where Cronbach's alpha > 0.7 was accepted (Söderlund, 2018, p.136) and values below indicated that questions should be analysed separately. Cronbach's alpha calculates the average of all split-half reliability coefficients, and measures how closely scores of different questions are related (Bryman and Bell, 2015, p.169).

The following section will present all measures included in the questionnaire, in chronological order.

The purchase

Initially the respondents were asked the question "What product did you buy?" in order to determine which product category each response belonged to. Respondents were given several predetermined answer options, where the different alternatives were based on the categorisation made by Swedish Trade Federation (PostNord et al, 2020) of the most commonly bought product categories online. These options were selected due to their relevance and coverage ratio; home electronics, clothes and shoes, books and media, building products, furniture and interior design, sports and hobby, baby products and toys, pharmaceuticals (medication) and health and beauty. The only category that was excluded was grocery products, as perishable goods and FMCG are not considered subject to product returns to the same extent (PostNord et al, 2020).

The question was further used to determine whether there was an equal distribution of product categories between the groups. This is in order to know whether the differences regarding product type should be considered when comparing the groups (PostNord et al, 2020).

Satisfaction

Customer satisfaction was measured with an index by Söderlund (2006) consisting of three questions measuring satisfaction in regards to the purchase. The questions "How satisfied or dissatisfied are you with your purchase?" (1 = very dissatisfied, 10 = very satisfied), "To what extent does your purchase meet your expectations?" (1 = not at all, 10 = totally) and "Imagine a product that is perfect in every respect. How near or far from this ideal do you find your product?" (1 = very far from, 10 = cannot get any closer) were used. Cronbach's alpha for this scale was 0.910, indicating that the questions could be computed into an index.

Involvement

Respondents' involvement in regards to the purchase decision was measured with three questions used by Banwari (1989). Respondents were asked "In selecting from many types and brands of this product available in the market, would you say that: "I would not care at all as to which one I buy" (endpoint, 1) and "I would care a great deal as to which one I buy" (endpoint, 10), "How

important would it be to you to make a right choice of this product?" (1 = not at all important, 10 = extremely important) and "In making your selection of this product, how concerned would you be about the outcome of your choice?" (1 = not at all concerned, 10 = very much concerned). Cronbach's alpha for this scale was 0.621, indicating that these could not be computed into an index in this particular study.

The first two questions; "In selecting from many types and brands of this product available in the market, would you say that: I would not care at all as to which one I buy/I would care a great deal as to which one I buy" and "How important would it be to you to make a right choice of this product?", had a cronbach's alpha of 0.761 when excluding the third question. According to Banwari (1989), the first two questions measure degree of caring and importance of making the right choice, while the third question measures concern with the outcome. While all three items according to Banwari (1989) measure the same construct of purchase decision involvement, a reliability analysis show that the items do not cohere in the context of this study. Consequently, involvement was measured using an index of the first two questions (degree of caring and importance of making the right choice) and one single question (concern with the outcome) in this study.

Pain of payment

Pain of payment was measured with the proxy "What is the minimum price that you would demand to give up this product?" (Scale 0-100%, 0% = 0% of the original price, 100 = 100% of the original price) from Shah (2015).

Customers' perceived product quality

Customers' perceived quality of the purchased product was measured with the question "The product I purchased is of high quality", "The product I purchased is better than average" and "The product I purchased is better than competitors", where the scale 1 = strongly disagree and 10 = strongly agree was used for all three (Dahlen and Rosengren, 2019). Cronbach's alpha for the scale was 0.784, indicating that the questions could be computed into an index.

Returns

To measure the variable of whether respondents returned their product or not, the question "Did you return the product?" (Yes, No) was used. Similar questions in previous literature have been used to study actual product returns (Lee, 2015; Janakiraman et al, 2012).

Control questions 1

The question "Which payment method did you use?" was used in order to control that respondents had answered the survey based on the payment method they were instructed to recall in the introduction of the survey. The different options were based on payment methods according to PostNord et al (2020) and different options offered by large e-commerce retailers in Sweden (H&M, 2020; Apotea, 2020; XXL, 2020; Cervera, 2020), in order to cover the most commonly offered payment methods at the time of the study; direct payment, debit card, invoice (pay later), Swish, pay in installments, credit card, Swish, PayPal and "other".

Choice of payment method

In order to understand why some people prefer a certain payment method, the question "Why did you choose that payment method?" was used. Respondents were allowed to pick multiple predetermined answer options; comfortable, fast, convenient, easy to use, preferred by store, safe, taken right away, helps me budget, for small amounts, control over money and easy to get refund. The question and answer alternatives were inspired by Ching and Hayashib (2010) and Scherling and Antinoja (2019).

Demographics

In order to estimate to what extent results can be generalisable, a selective number of demographic questions were included in the survey to examine the composition of the sample (Aidley, 2019, p.62). Respondents answered the question "I identify myself as" (female, male, non-binary or do not wish to disclose), "How old are you" (open question) and "What is your

monthly income?" (predetermined answers of; SEK: <10 000 with intervals of 10 000, to the option of >70 000) (Aidley, 2015, p.72-73, 76).

Control question 2

To ensure that participants paid attention to the instructions, the question "How many circles can you see?" was used, where the participant could clearly see different geometric shapes and was given several predetermined options to choose from.

3.5.4 Sampling

The survey was designed in Qualtrics, an online survey tool. The survey was distributed and answered online between 22 - 28 March 2020 using convenience sampling (Saunders et al, 2009, p.241). Respondents were randomly assigned one of the two surveys using a randomiser tool to make sure an equal distribution. To reach a broader group of respondents than the authors' own networks and in order to add diversity to the sample, the distribution of the survey was extended to different social media groups online. These groups were targeted towards both females and males in different age-spans and with different interests. In order to motivate respondents to take part in the survey, the option to participate in a competition of two cinema tickets was offered at the end of the survey. This limited the anonymity, where respondents who wanted to participate in the competition had to make the decision on whether to provide their email addresses.

A total of 216 respondents completed the survey. Clearance of the data started by deleting 3 respondents who had answered incorrectly on the second control question, which resulted in 213 respondents. Respondents who had used credit card (6 respondents) were excluded, as credit cards are a form of deferred payment method. Respondents who used "Other" (1 respondent) were excluded, since these could not be classified into either group. No respondents answered the option of installments as payment method.

Respondents who answered a payment method that did not correspond to the one given in the instructions were deleted from the data. 20 respondents from the group paying by "invoice"

answered incorrectly, namely anything other than invoice, resulting in 77 respondents. Respectively, 33 respondents using "direct payment methods" answered incorrectly to the same question, namely anything other than direct payment, debit card, Swish and PayPal, resulting in 76 respondents and a total of 153 respondents in the study. Both groups were big enough to proceed with statistical testing (Söderlund, 2018, p.48). The final distribution between payment methods for both groups are shown in Table 2.

Table 2
Payment methods

Which payment method did you use?	Total	
	Frequency	Percentage
Invoice	77	50.3
Direct payment	18	11.8
Debit card	39	25.5
Swish	15	9.8
PayPal	4	2.6
Credit card	-	-
Pay in installments	-	-
Other	-	-
		n = 153

The sample consisted of 75.2% females, where the percentage within the group is higher for the group paying by invoice (83.1%) compared to the group paying with direct payment methods (67.1%), following the anticipated trend of female overrepresentation in the group using invoice (Deufel and Kemper, 2018). Males represented 24.8% of the total sample with a higher percentage within the group paying with direct payment methods (32.9%) compared to the group paying by invoice (16.9%). There were no respondents identifying themselves as non-binary or did not want to disclose (Table 3).

A total of 81.0% of the sample belonged to the age group 20-29, followed by the second largest group of 9.8% in the age of 30-39 and the third largest group of 5.3% in the age of 40-49. There were no systematic differences in the distribution between the two groups in age. The amount of respondents representing each age group decreased as the age increased, which is similar to the

pattern identified by PostNord et al (2020), where the younger generations are more represented online and in e-commerce (Table 3).

The largest group of respondents had a disposable income between SEK 10 000-20 000 per month (52.9% of the sample), the second largest group had a disposable income less than SEK 10 000 per month (23.5%) and the third largest group had a disposable income of SEK 20 001-30 000 per month (13.7%). There were no systematic differences between the groups for disposable income (Table 3).

Table 3
Demographic characteristics for the participants in the main study.

Demographic characteristic		Total		Invoice		Direct Payment Method	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender	Male	38	24.8	13	16.9	25	32.9
	Female	115	75.2	64	83.1	51	67.1
Age	<20	4	2.6	2	2.6	2	2.6
	20-30	130	85.0	64	83.1	66	86.8
	31-40	12	7.8	6	7.8	6	7.9
	41-50	6	3.9	4	5.2	2	2.6
	51-60	-	-	-	-	-	-
	>60	1	0.7	1	1.3	-	-
Monthly disposable income (SEK)	<10 000	36	23.5	16	20.8	20	26.3
	10 000-20 000	81	52.9	44	57.1	37	48.7
	20 001-30 000	21	13.7	7	9.1	14	18.4
	30 001-40 000	11	7.2	8	10.4	3	3.9
	40 001-50 000	3	2.0	2	2.6	1	1.3
	>50 001	1	0.7	-	-	1	1.3

n = 153

The distribution between product categories varied, but a Pearson's chi-square test showed that there were no systematic differences in the distribution of categories between the groups. The majority of respondents referred to a purchase within the product category clothes and shoes, which accounted for 51.0% of all purchases in both groups. The second most represented product category were books and media for the group using invoice (14.3% of customers using invoice, 7.9% of customers using direct payment methods) and health and beauty for the group using direct payment methods (10.4% of customers using invoice, 15.8% using direct payment methods) (Table 4). Although the distribution between product categories varied, the pattern followed the identified rankings of the most popular e-commerce sectors online, according to

PostNord et al (2020), where the majority of e-commerce shoppers shop within the clothes and shoes sector, the second largest group shop within beauty and health, third largest books and media, and the fourth largest home electronics.

Table 4
Industries

What product did you buy?	Invoice		Direct Payment Method	
	Frequency	Percentage	Frequency	Percentage
Home electronics	6	7.8	6	7.9
Clothes and shoes	39	50.6	39	51.3
Books and media	11	14.3	6	7.9
Building products	-	-	-	-
Furniture and interior design	4	5.2	4	5.3
Sport and hobby	3	3.9	6	7.9
Baby products and toys	2	2.6	-	-
Pharmaceuticals (medication)	4	5.2	3	3.9
Health and beauty	8	10.4	12	15.8

n = 153

3.5.5 Assessment of reliability and validity

Reliability

Reliability is the statistical measure of the extent to which the data collected through the survey reflects real life (Litwin, 1995, p.5). In order to minimise chances of random error, it is recommended to select a large and representative sample of respondents to answer the survey. Given the finite time and resources, the extent of answer compilation was limited. However, the distribution in terms of demographics followed the representative sample of Swedish online shoppers (PostNord et al, 2020). Furthermore, statistical tests were conducted in order to provide reliable results (Litwin, 1995, p.5).

The measurement error concerns the consistency of measurements used and how well the chosen instrument performs in a given population (Liwin, 1995 p.5). In order to ensure that the questions tested what these were intended to, the survey was based on questions either adopted or adapted from prior scientific questionnaires which according to Saunders et al (2009, p.374) allows further reliability. All these factors considered, the level of reliability is argued acceptable.

Validity

Validity is the extent to which the study reflects true and real life relationships between the examined variables, which has been controlled through multiple facets (Aidley, 2019, p.46). Firstly, the internal validity addresses the issue of causality between the dependent and independent variables to ensure that no unintended elements influenced the results (Bryman and Bell, 2015, p.50; Aidley, 2019, p.47). To make sure that respondents understand the instructions and recognise different payment methods, a pre-study was conducted (Aidley, 2019, p.88-89). To avoid self-selection of preferred payment method, the group allocation of respondents was randomised (Aidley, 2019, p.47). Furthermore, to ensure consistency, the survey was identical to all respondents, except for the two introductory instructions which varied through the given payment method.

The selected research method did not allow observations of the respondents while answering the survey. However, two control questions were used in order to make sure that instructions were understood and attention was paid to the questionnaire. In order to avoid systematic differences in regards to the mediating effects of different product categories, a question asking about the specific product category for each response was included. Additionally, a number of demographic variables which may have an effect on the dependent variables were measured. Questions included gender, age and disposable income (Aidley, 2019, p.62). Lastly, in order to ensure internal validity, all results were conducted through statistical tests (Söderlund, 2018, p.173). The internal validity of the study is considered acceptable.

External validity concerns whether the results of the survey can be trusted beyond the context of the study. The sample used needed to be representative of the online shopper population. Respondents were mainly selected from the authors' network and supplemented by different social media groups, in order to broaden the distribution to different demographic groups. Due to the online format of the questionnaire, the study did only reach respondents with Internet access and sufficient computer skills (Aidley, 2019, p.47). The sample is rather narrow and does not

represent the Swedish population, however, it is fair to conclude that it is relatively representative of the population of online shoppers. For the purpose of this study, the external validity is considered acceptable.

Ecological validity being the last criterion questions whether the findings of the report can be applicable to the real world outside the testing environment. The study was a post transaction questionnaire asking about respondents' actual purchases, reducing the artificial effect of the situation. (Aidley, 2019, p.48). As the study is based on the real life shopping behaviours and product evaluations, the study can be considered ecologically valid.

4. Empirical evidence

For the following statistical tests, a significance level of 5.0% or lower was accepted (Aidley, 2019, p.180).

4.1 Product returns

Hypothesis 1 (Section 2.3.1) suggests that customers paying by invoice return more products than customers paying with direct payment methods. A Pearson's chi-square test significantly (p-value = 0.005) supported the first hypothesis where 18.2% of respondents in the invoice group returned their products compared to 3.9% respondents in the group using direct payment methods (Table 5).

Table 5

Chi-square test	Invoice	Direct Payment Method		
	Percentage	Percentage	Chi-square	Sig
Product returns	18.2	3.9	7.847	0.005

n = 153

Choice of payment method

When respondents were asked why they paid with their chosen payment method, the answers varied between the groups. Respondents in the invoice group had chosen invoices because they considered it to be convenient (63.6%), comfortable (55.8%), easy to use (45.5%), fast (36.4%), safe (35.1%), it enables easy refunds (35.1%), provides control over money (15.6%), was preferred by store (7.8%), helps to budget (6.5%) and for small amounts (5.2%). In contrast, the second group stated that they selected direct payment methods due to the immediate transfer of money (56.6%), the method being fast (48.7%), easy to use (43.4%), convenient (42.1%), safe (18.4%), helps to budget (6.6%), easy to get refund (6.6%) and for small amounts (2.6%) (Table 6).

Table 6
Payment preferences (Multiple choice)

Why did you choose this payment method?	Invoice		Direct Payment Method	
	Frequency	Percentage	Frequency	Percentage
Comfortable	43	55.8	41	53.9
Fast	28	36.4	37	48.7
Convenient	49	63.6	32	42.1
Easy to use	35	45.5	33	43.4
Preferred by store	6	7.8	9	11.8
Safe	27	35.1	14	18.4
Money taken right away	-	-	43	56.6
Helps me budget	5	6.5	5	6.6
For small amounts	4	5.2	2	2.6
Control over money	12	15.6	19	25.0
Easy to get refund	27	35.1	5	6.6

n = 153

4.2 Pain of payment

The second hypothesis (Section 2.3.2) suggests that customers paying with invoice have lower pain of payment compared to customers paying with direct payment methods. An independent sample t-test showed however that there was no significant difference in pain of payment between the groups ($M_{invoice}$ = 57.92, $SD_{invoice}$ = 28.14 vs. M_{DPM} = 64.43, SD_{DPM} = 24.11, p-value = 0.064) (Table 7) and did not find significant support for the hypothesis.

A regression analysis was conducted in order to measure the relationship between payment method and pain of payment. The results showed no significant relationship between the two (beta = 6.512, p-value = 0.127) (Table 8).

Table 7

Independent sample t-test	Invoice		Direct Payment Method			
	Mean	SD	Mean	SD	Sig	t
Pain of payment	57.92	28.14	64.43	24.11	0.064	1.536

1 = Low pain of payment, 100 = High pain of payment *n = 153*

Table 8

Regression analysis					
Dependent variable	Independent variable	R^2	Sig	B*	Sig
Pain of payment	Payment method	0.015	0.127	6.512	0.127

1 = Low pain of payment, 100 = High pain of payment **Unstandındardised, n = 153*

0 = Invoice, 1 = DPM

4.3 Involvement

The third hypothesis (Section 2.3.3) suggests that customers paying by invoice have lower involvement compared to customers paying with direct payment methods. As involvement was measured with two separate questions (index and single question), two independent samples t-tests were computed, one comparing the effects for the index and a second test for the single question.

An independent sample t-test for the index showed that there were no significant differences between the groups ($M_{invoice}$ = 7.88, $SD_{invoice}$ = 1.67 vs. M_{DPM} = 8.01, SD_{DPM} = 1.95, p-value = 0.338) (Table 9) in regards to customers' degree of caring and importance of making the right choice. In contrast, an independent samples t-test for the single question showed significant differences between the groups ($M_{invoice}$ = 6.29, $SD_{invoice}$ = 3.14 vs. M_{DPM} = 7.28, SD_{DPM} = 2.43, p-value = 0.016), showing that customers paying by invoice feel less concerned with the outcome of their purchase (Table 9).

Regression analyses were made to confirm the relationship between payment method and customers' purchase decision involvement. The results followed the same pattern as the hypothesis. First, the relationship between payment method and the involvement index was measured, showing no significant relationship (beta = 0.123, p-value = 0.675). Secondly, the relationship between payment method and the involvement single question confirmed a

significant negative relationship between paying by invoice and shoppers' involvement with the purchase (beta = 0.991, p-value = 0.031) (Table 10). These results show that customers paying by invoice demonstrate lower concern with the outcome of the purchase, compared to customers paying with direct payment methods. In contrast, the results demonstrate that there are no significant differences between customers paying by invoice or direct payment methods, in their degree of caring or importance of making the right purchase decision.

Additionally, regression analyses were made to measure the relationship between customers' pain of payment and their purchase decision involvement. As previously, two regression analyses were made. The results showed that there was a significant and positive relationship between pain of payment and the involvement index (beta = 0.014, p-value = 0.012). In contrast, the relationship between pain of payment and involvement was not significant for the involvement single question (beta = -0.002, p-value = 0.851) (Table 10). These results indicate that pain of payment has a significant relationship with customers' degree of caring and importance of making the right purchase decision, but not with customers' concern about the outcome of their choice.

Table 9

Independent sample t-test	Invoice		Direct Payment Method			
	Mean	SD	Mean	SD	Sig	t
Involvement index	7.88	1.67	8.01	1.95	0.338	0.420
Involvement single	6.29	3.14	7.28	2.4	0.016	2.181

1 = Low involvement, 10 = High involvement *n = 153*

Table 10

Regression analysis

Dependent variable	Independent variable	R^2	Sig	B*	Sig
Involvement index	Payment method	0.001	0.675	0.123	0.675
	Pain of payment	0.041	0.012	0.014	0.012
Involvement single	Payment method	0.031	0.031	0.991	0.031
	Pain of payment	0.000	0.851	-0.002	0.851

1 = Low involvement, 10 = High involvement **Unstandardised, n = 153*

0 = Invoice, 1 = DPM

1 = Low pain of payment, 100 = High pain of payment

4.4 Perceived product quality

The fourth hypothesis (Section 2.3.4) suggests that customers paying by invoice have lower perceived product quality compared to customers paying with direct payment methods. An initial independent samples t-test confirmed the hypothesis showing significant differences between the groups ($M_{invoice}$ = 5.80, $SD_{invoice}$ = 2.54 vs. M_{DPM} = 6.82, SD_{DPM} = 1.78, p-value = 0.002) (Table 11).

The predicted relationship between pain of payment and perceived product quality was confirmed by a regression analysis, showing a significant positive relationship (beta = 0.026, p-value = 0.000) (Table 12).

Table 11

Independent sample t-test	Invoice		Direct Payment Method			
	Mean	SD	Mean	SD	Sig	t
Quality	5.80	2.54	6.82	1.78	0.002	2.899

1 = Low quality, 10 = High quality *n = 153*

Table 12

Regression analysis					
Dependent variable	Independent variable	R^2	Sig	B*	Sig
Quality	Pain of payment	0.091	0.000	0.026	0.000

1 = Low quality, 10 = High quality **Unstanandardised, n = 153*

1 = Low pain of payment, 100 = High pain of payment

4.5 Satisfaction

The fifth hypothesis (Section 2.3.5) suggests that customers paying with invoice have lower satisfaction compared to customers paying with direct payment methods. An independent sample t-test showed that there were no significant differences between the groups, hence did not find support for the hypothesis ($M_{invoice}$ = 7.73, $SD_{invoice}$ = 2.39 vs. M_{DPM} = 8.05, SD_{DPM} = 1.71, p-value = 0.174) (Table 13).

Additionally, the relationship between involvement and satisfaction was examined, where a regression analysis between the involvement index and satisfaction supported the predicted

relationship (beta = 0.324, p-value = 0.000). However, similarly to previous results (Section 4.2.2), the relationship differs when examining the relationship between the single question of involvement and satisfaction, where the results were not significant (beta = -0.020, p-value = 0.735). The second variable that was measured in relation to satisfaction was quality. A regression analysis provided significant support to the predicted relationship, where results showed that quality and satisfaction have a significant and positive relationship (beta = 0.416, p-value = 0.000). Meaning that quality has a significant effect on customers' satisfaction with their purchase (Table 14).

Table 13

Independent sample t-test	Invoice		Direct Payment Method			
	Mean	SD	Mean	SD	Sig	t
Satisfaction	7.73	2.39	8.05	1.71	0.174	0.942

1 = Low satisfaction, 10 = High satisfaction *n = 153*

Table 14

Regression analysis

Dependent variable	Independent variable	R^2	Sig	B*	Sig
Satisfaction	Involvement index	0.080	0.000	0.324	0.000
	Involvement single	0.001	0.735	-0.020	0.735
	Quality	0.203	0.000	0.416	0.000

1 = Low satisfaction, 10 = High satisfaction **Unstandardised, n = 153*

1 = Low involvement, 10 = High involvement

1 = Low quality, 10 = High quality

5. Discussion

5.1 Product returns

The results of the study find significant support for the hypothesis that customers paying by invoice return more compared to customers paying with direct payment methods (Section 4.1). According to prior research, invoices are said to increase conversion rates (Deufel and Kemper, 2018; Klarna and Shopify, 2019), but the results from this study shed light on a potential downside of the payment method. The study demonstrates that invoice users return a larger share of items than the group using direct payment methods, with 18.2% and 3.9% respectively.

The reasons behind choosing invoice as payment method differ between individuals, however the study has identified what could be some of the underlying motivations. According to the study, 35.1% of respondents using invoices said that they chose the payment method as it enables easy refunds (6.6% in the direct payment group). Interestingly, this could indicate that customers sometimes buy things that they know from the beginning they are unlikely to keep, therefore considering a potential return already at the point of sale. In line with the previous argument, it could hence be argued that customers who are uncertain about their purchases prefer invoice as payment method, as it allows easier refunds in the case of a potential return. To summarise, this could be part of the explanation of how invoices increase sales while simultaneously leading to an unproportional increase in product returns.

5.2 Pain of payment

The results of the study find that customers who pay by invoice demonstrate lower pain of payment compared to customers paying with direct payment methods, supporting the expected relationship between invoices and a greater distance from the negative feeling connected to the payment (Section 4.2). By making a transaction less painful, invoices may decrease barriers to purchase and hence increase customer spending (Klarna and Shopify, 2019). Although the

relationship followed the anticipated trend, the results were not significant (p-value = 0.064) and do not provide statistical support for the hypothesis.

Despite being supported by theory on how payment methods affect pain of payment, the regression analysis between the two did not prove significant (p-value = 0.062). There are plausible reasons that could explain the insignificant results from both tests. While pain of payment refers to the pain at the moment of the transaction, this study was based on a post transaction questionnaire. As the time horizon between the purchase and record of responses was not considered, there could be a potential gap in respondents' ability to recall the actual feeling of the purchase. Previous research has found that respondents' ability to recall feelings diminishes with time (Kaplan et al, 2015), supporting this argument.

5.3 Involvement

The results of the study find partial support for the hypothesis that customers paying by invoice have lower involvement compared to customers paying with direct payment methods (Section 4.3).

As invoices allow for a reduced perceived risk given the postponed payment, it is suggested that the customer no longer feels the need to be equally involved in making the right choice (Shah, 2015). However, the results were only significant for the item measuring customers' concern with the outcome, which according to Banwari (1989) is strongly related to customer perceived risk. While the results were not significant for the index measuring customers' degree of caring and importance of making the right choice, it is suggested that paying by invoice only affect the dimension of purchase decision involvement that is related to customers' perceived risk, rather than customers' purchase decision involvement as a whole. These results suggests that customers feel equally involved in making the right purchase decision, independently of payment method, but feel less concerned with the outcome when paying by invoice. This could be explained by the perceived risk, which is suggested to be lower for purchases made paying by invoice, due to the monetary factor of transferring money prior to receiving the product, as well as the mental risk of

following up on a refund.

Additionally, the study found partial support for the relationship between pain of payment and involvement, where the relationship was significant for the index but was not significant for the single question. These results show that customers' pain of payment has a significant effect on customers' degree of caring and importance of making the right purchase decision, but does not have a significant effect on customers' concern with the outcome. It is hence suggested that the negative feeling a customer experiences from the monetary loss at the point of transaction, affects customers' feeling of making the right choice rather than affecting the perceived risk with the purchase.

5.4 Perceived product quality

The results of the study find significant support for the hypothesis that customers paying by invoice have lower perceived product quality compared to customers paying with direct payment methods (Section 4.4). These results underline the importance of understanding how different payment methods lead to additional effects besides an increase in product returns. By paying using invoice, customers experience lower perceived product quality, which is a valuable insight in the B2C context where retailers are dependent on how customers perceive their offering. Consumers today have more alternatives to choose from when shopping for various product categories (Shah, 2015). In a competitive marketplace it is therefore of high importance to control the perceived quality as the customer has low switching costs.

Results from the study found a strong relationship between pain of payment and perceived product quality, confirming the expected relationship and providing additional support to the assumption that making painful purchases increase perceived product quality (Soman, 2003; Scitovsky, 1945; Stiglitz, 1987). In contrast, less painful purchases leads to lower perceived product quality. This provides an understanding about how perceived quality is not an independent factor but also a result of preceding reactions.

As previously mentioned, there is an identified gap between the objective quality (Hazen et al, 2017) which is said to have increased in recent years, and perceived product quality being one of the main reasons behind product returns (Borglund, 2019). As this study focuses on the perceived product quality, these results imply that retailers should not only focus on the objective quality of the product but also study how it is perceived and what are the underlying drivers.

5.5 Satisfaction

The results for satisfaction follow the anticipated trend where satisfaction was lower for customers paying by invoice compared to customers paying with direct payment methods (Section 4.5). Although following the expected tendency, the results were not significant and thus cannot confirm that invoices result in lower satisfaction (p-value = 0.174).

In line with previous research on the topic (Tsiotsou, 2006), the results from the study indicate that customers' involvement with the purchase, although only partially significant, as well as customers' perceived product quality, which was proven significant, have an effect on satisfaction. Considering the confirmed relationship between perceived product quality and satisfaction, it was surprising that the hypothesis was not supported by significant results. A plausible explanation to this is that satisfaction is a variable affected by multiple factors. While these include both product factors such as quality, but also other individual values (Wang and Wallendorf, 2006), the insignificance of the results could be derived from many other elements that influence the respondents' feelings toward the product.

Previous literature has identified relationships between satisfaction and product returns (Maity and Arnold, 2013; Lee, 2015). Furthermore, satisfaction is a variable that prior studies have connected to various other responses such as repatronage intentions and word of mouth (Söderlund, 2005). Understanding what determines customers' satisfaction has in previous literature played an important role in order to predict customers' purchase behaviour (McQuitty et al, 2000). Although the results did not provide support for the hypothesis, previous research

supports satisfaction's importance for retailers in relation to both product returns and additional behavioural factors.

5.6 General discussion and conclusion

The results from this study provide empirical evidence on the relationship between B2C invoices and product returns. Customers have a higher tendency to return products using invoice as payment method. However, it is also found that customers who are uncertain about their purchases prefer invoice as payment method, as it allows easier refunds in the case of a potential return.

Considering the results of this study, another important conclusion is that payment methods do not only affect share of returns but can also affect other aspects. Customers who pay using invoice perceive the product quality to be lower, compared to customers using direct payment methods. Meaning that even if a customer does not have the ability or willingness to put in the effort to return a product, the customer can still evaluate the purchase more negatively. While product returns and perceived product quality were the only significant factors identified, the study shows tendencies of additional effects on both psychological and opinion based factors.

The results for satisfaction proved similar for both groups, indicating that invoices do not have a significant effect on customers' satisfaction with the product, although invoices decrease the perceived quality of the product which was proved to be significantly related. Combining these insights, one could argue that invoices might have a positive effect on satisfaction when correcting for the effect of the lower perceived quality on satisfaction.

To summarise, these results indicate the importance for retail practitioners to understand the effects of offering certain payment methods, in order to make informed decisions about the most suitable payment offering for their businesses. Practical implications and suggestions based on these insights will be presented in the following section.

6. Practical implications

As more research is conducted in the field of product returns, more retailers will learn the underlying reasons for the growing trend. Given that this study addresses how B2C invoices affect product returns, its insights can help retailers make informed decisions on how product returns can be better controlled. Additionally, it aims to inspire future efforts in order to address additional consequences of invoice as payment method online.

It is often argued that invoices are beneficial in order to increase conversion rates (Deufel and Kemper, 2018; Klarna and Shopify, 2019) and thus sales. Given the possible advantages of the payment method, retailers struggling with product returns should primarily consider how to limit the number of customers exploiting easy and simple returns prior to removing invoices from the payment method offering. Instead, retailers are suggested to take action to discourage or pause customers with high return frequencies from using invoices.

In addition, what can be established from the study is that payment methods could have additional effects on customers' perceived product quality. While perceived product quality is important for all retailers, some are more dependent than others. It is suggested that sectors where consumers' perceived product quality is of higher importance, retailers should consider whether the costs of invoices are balanced by the advantages.

The new trend in online e-commerce is customer centricity, where the aim is to personalise each customer's experience. In order to do so, it has become a necessity to collect and analyse customer data, in order to provide a customised solution based on each customer's preferences and behaviours. Insights from this study can work as a source of inspiration on a relatively new area of practice. If retailers can learn how to incorporate the dimension of payment method in their analyses of the customer journey, one will be able to better influence customers in a beneficial direction.

7. Limitations and future research

The first limitation addressed in the study is the aspect of time. As earlier mentioned, respondents were asked to recall their latest purchase, given a specific payment method where respondents were assigned either invoice or direct payment methods. As the time aspect was not measured nor considered in the survey, attitudes and behaviours attributed to the answers could have been affected over time depending on when the purchase was made. The time aspect could hence be part of the explanation why the results gave support to the predicted patterns, but did not find significant support to all hypotheses. In order to minimise this source of error in future research, the questionnaire should be handed out directly after the customer has received the purchase.

While results from the study were in line with previous research and theory on the subject, invoices' effect on product returns and perceived product quality are supported. However, future research should challenge these results by investigating the causality between invoices and these variables in an experiment.

Future studies should also investigate competitive explanations to the results rather than only the use of a specific payment method. Such factors could be the price of the purchase, where products considered more expensive have higher return rates (Shopify, 2019). Secondly, factors such as delivery and return policy leniency could have an effect on customers' purchase behaviour and return intentions (Wood, 2001; Lee, 2015), assuming that the distribution of these factors were unequal in the two groups of this study.

Another limitation in the study was the generalisation across industries. Although a broad pattern across the e-commerce industry has been identified, it did not focus on the sector-dependent differences. Future research should focus efforts on studying how different product categories are each impacted by invoices and how different product attributes affect this relationship. This

would allow insights to better accommodate the prerequisites of different sectors and generate more actionable insights.

To the best of the authors' knowledge, this study was a first attempt to bring awareness to a new area where little research has been done. Consequently, there are many more interesting variables that should be examined in order to address additional effects of invoices on e-commerce customers.

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9. Appendix

Appendix A: Pre-study



Imagine that you are buying a product through an online store. You decide to buy the product using an **invoice** (e.g. Klarna or Qliro). Please keep this scenario in mind when answering the following questions.

Scenario 1: Invoice



Imagine that you are buying a product through an online store. You decide to buy the product using a **direct payment method** (e.g. debit card, Swish, PaylPal or Direct payment). Please keep this scenario in mind when answering the following questions.

Scenario 2: Direct payment method

Is the payment done now or after receiving the product?

- Now
- At a later point

I will receive the product before the payment follows through?

- Agree
- Disagree

I identify myself as

- Female
- Male
- Non-binary
- Do not wish to disclose

How old are you (e.g. 23, 53, 62)?

We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix B: Main study



Hello,

Thank you for taking the time to answer our survey! The results will be used in a study for our Bachelor's thesis at Stockholm School of Economics.

The study is estimated to take approximately 5 minutes and all answers are anonymous. Please read the questions carefully as you will not be able to return to previous page.

Please reach out to 50528@student.hhs.se or 50455@student.hhs.se if you have any questions.

Best regards,
Ida Lennartsson & Julia Wodecka

→



Try to recall the latest online purchase you made using **invoice as payment method** (e.g. Klarna or Qliro) and where you have already received the item you ordered. If you bought multiple items, please only recall one independently of whether you returned it or not.

Do not include services, groceries or products you bought for other people/gifts. Keep this scenario in mind while answering the following questionnaire.



Instruction 1: Invoice



Try to recall the latest online purchase you made using a **direct payment method** (e.g. debit card, Swish, PayPal or Direct payment) and where you have already received the item you ordered. If you bought multiple items, please only recall one independently of whether you returned it or not.

Do not include services, groceries or products you bought for other people/gifts. Keep this scenario in mind while answering the following questionnaire.



Instruction 2: Direct payment method

What product did you buy?

- Home electronics
- Clothes and shoes
- Books and media
- Building products
- Furniture and interior design
- Sports and hobby
- Baby products and toys
- Pharmaceuticals (medication)
- Health and beauty

	Very dissatisfied	2	3	4	5	6	7	8	9	Very satisfied
How satisfied or dissatisfied are you with your purchase?	○	○	○	○	○	○	○	○	○	○

	Not at all	2	3	4	5	6	7	8	9	Totally
To what extent does your purchase meet your expectations?	○	○	○	○	○	○	○	○	○	○

	Very far from	2	3	4	5	6	7	8	9	Cannot get any closer
Imagine a product that is perfect in every respect. How near or far from this ideal do you find your product?	○	○	○	○	○	○	○	○	○	○

	I would not care at all as to which one I buy	2	3	4	5	6	7	8	9	I would care a great deal as to which one I buy
In selecting from many types and brands of this product available in the market, would you say that:	○	○	○	○	○	○	○	○	○	○

	Not at all important	2	3	4	5	6	7	8	9	Extremely important
How important would it be to you to make a right choice of this product?	○	○	○	○	○	○	○	○	○	○

	Not at all concerned	2	3	4	5	6	7	8	9	Very much concerned
In making your selection of this product, how concerned would you be about the outcome of your choice?	○	○	○	○	○	○	○	○	○	○

What is the minimum price that you would demand to give up this product? (%)

0 10 20 30 40 50 60 70 80 90 100



To what extent do you agree with the following statements?

	Strongly disagree	2	3	4	5	6	7	8	9	Strongly agree
The product I purchased is of high quality	○	○	○	○	○	○	○	○	○	○
The product I purchased is better than average	○	○	○	○	○	○	○	○	○	○
The product I purchased is better than competitors	○	○	○	○	○	○	○	○	○	○

Which payment method did you use?

- Direct payment
- Debit card
- Invoice (pay later)
- Pay in installments
- Credit card
- Swish
- PayPal
- Other

Why did you choose that payment method?

- Comfortable
- Fast
- Convenient
- Easy to use
- Preferred by store
- Safe
- Taken right away
- Helps me budget
- For small amounts
- Control over money
- Easy to get refund

Did you return the product?

Yes

No

I identify as

Female

Male

Non-binary

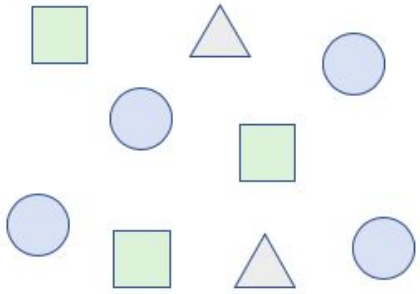
Do not wish to disclose

How old are you?

What is your monthly disposable income? (SEK)

- <10 000
- 10 000 - 20 000
- 20 001 - 30 000
- 30 001 - 40 000
- 40 001 - 50 000
- 50 001 - 60 000
- 60 001 - 70 000
- >70 000

How many circles can you see?



1

2

3

4

5

Thank you for answering our survey! If you wish to participate in the lottery of two cinema tickets, please fill in you e-mail address.

We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix C: Correlation analyses

Total sample

Pearson Correlation

Variable	1	2	3	4	5	6
1. Payment method	1					
2. Pain of payment	0.124	1				
3. Involvement Index	0.034	0.204*	1			
4. Involvement Single	0.175*	-0.015	0.313**	1		
5. Quality	0.229**	0.302**	0.302**	0.073	1	
6. Satisfaction	0.076	0.147	0.282**	-0.028	0.451**	1

** is signifact at the 0.05 level* *n = 153*

*** is significant at the 0.01 level*

Invoice

Pearson Correlation

Variable	1	2	3	4	5
1. Pain of payment	1				
2. Involvement Index	0.236*	1			
3. Involvement Single	-0.094	0.298**	1		
4. Quality	0.251*	0.174	0.002	1	
5. Satisfaction	0.178	0.278*	-0.059	0.552**	1

** is signifact at the 0.05 level* *n = 77*

*** is significant at the 0.01 level*

Direct payment method

Pearson Correlation

Variable	1	2	3	4	5
1. Pain of payment	1				
2. Involvement Index	0.170	1			
3. Involvement Single	0.048	0.342**	1		
4. Quality	0.343**	0.484**	0.096	1	
5. Satisfaction	0.076	0.303**	-0.011	0.234*	1

** is signifact at the 0.05 level* *n = 76*

*** is significant at the 0.01 level*

Appendix D: Multiple regressions analyses

Model 1

Multiple regression analysis

Dependent variable	Independent variable	R^2	Sig	B*	Sig	Durbin-Watson	Condition Index
Involvement single	Payment method	0.032	0.088	-0.004	0.643	1.541	5.623
	Pain of payment			1.017	0.028		

1 = Low involvement, 10 = High involvement

**Unstandardised, n = 153*

0 = Invoice, 1 = DPM

1 = Low pain of payment, 100 = High pain of payment

Model 2

Multiple regression analysis

Dependent variable	Independent variable	R^2	Sig	B*	Sig	Durbin-Watson	Condition Index
Involvement index	Payment method	0.042	0.042	0.014	0.013	2.078	5.623
	Pain of payment			0.033	0.911		

1 = Low involvement, 10 = High involvement

**Unstandardised, n = 153*

0 = Invoice, 1 = DPM

1 = Low pain of payment, 100 = High pain of payment

Model 3

Multiple regression analysis

Dependent variable	Independent variable	R^2	Sig	B*	Sig	Durbin-Watson	Condition Index
Satisfaction	Involvement single			-0.087	0.115		
	Involvement index	0.240	0.000	0.228	0.012	1.875	12.358
	Quality			0.369	0.000		

1 = Low satisfaction, 10 = High satisfaction

**Unstandardised, n = 153*

1 = Low involvement, 10 = High involvement

1 = Low quality, 10 = High quality