

# **“Investigation of consumer over-indebtedness within the German mail-order industry using the Theory of Planned Behaviour”**

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## Abstract

This research applied Ajzen's theory of planned behaviour (TPB) to investigate the payment behaviour of over-indebted consumers within the German mail-order industry. Both imprisoned (N=41) and not-imprisoned (N=97) consumers' attitudes, social norms, perceived behavioural control (PBC), its correspondent beliefs, and payment intention were analysed using structural equation modelling with the partial least squares approach. Although the sample size was small, the fit of the models were statistically valid and no statistical difference between imprisoned and not-imprisoned consumers was ascertained. The main predictor variables were analysed regarding gender specification and were enriched with moral norms and past behaviour. Subjective norm was the strongest predictor of payment behaviour of the not-imprisoned sample. Gender had a statistically relevant impact on payment intention.

In sum, the main constructs of the TPB explained 35.8% of the variance in intention ( $R^2$ ) to pay further mail-order invoices on time. PBC increased the accuracy and the model was therefore superior to the theory of reasoned action ( $R^2 = 28.5\%$ ). The extension of the TPB with moral norms led to an increase of  $R^2$  to 47.0%, with past behaviour to 39.5%, and with both to 49.0%. Therefore, this supports the extension of the basic model of the TPB in order to strengthen the explanation of the behaviour under consideration.

In general, the outcome of this study identifies further related factors concerning payment behaviour, beyond those previously present within research and practice. From a practical perspective this study adds significant value to the understanding of over-indebtedness in Germany and its implication for the mail-order industry. It demonstrates the alarming debt situation of individuals over the last several years and the ambivalence regarding the normality of having debts in Germany. It emphasizes the complexity of payment behaviour and its personal influences. Payment of a mail-order invoice on time has no single specific causation, but typically is caused by more factors than previously thought.

## Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Gloucestershire and is original except where indicated by specific reference in the text. No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other education institution in the United Kingdom or overseas.

Any views expressed in the thesis are those of the author and in no way represent those of the University.

Signed ..... Date .....

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## LIST OF ABBREVIATIONS

A / AT	attitude towards behaviour
ANN	artificial neural network
AVE	average variance extracted
BI	behavioural intention
CB-SEM	covariance-based SEM
CDFs	cumulative distribution functions
LISREL	linear structural relations
OLS	ordinary least squares
PBC	perceived behavioural control
PLS	partial least squares
PLS-MGA	PLS-SEM multi-group analysis
PLS-SEM	partial least squares SEM
SEM	structural equation modelling
SD	standard deviation
SN	subjective Norm
TPB	theory of planned behaviour
TRA	theory of reasoned action

## **CHAPTER 1: INTRODUCTION TO THE THESIS**

Shopping and consumption opportunities in Germany have never been so diverse. One can visit a shop (“bricks-and-mortar” business), use the internet (“click-and-mortar” business), order in a catalogue, watch several Home Shopping TV-Channels, or use a mobile phone to buy goods or utilize services. Multi-channel-companies are selling their products everywhere: in local stores, on different web sites, on TV, and via different catalogues.

The multi-channel life of consumers (e.g., using social media, watching TV, reading newspapers) offers images of an affluent society with novel goods and services, and a bright future linked with obtainable credits (Baudrillard, 2001; Livingstone & Lunt, 1992). The act of shopping is pleasurable (Gardner & Sheppard, 2013), consumption stands for self-worth (Douglas & Isherwood, 2002) and consumer durables represent personal values and symbolize social identity (Csikszentmihalyi & Rochberg-Halton, 1981; as cited in Livingstone & Lunt, 1992a). In sum, “Lifestyle expectations (Livingstone & Lunt, 1991), perceptions of luxury and need (Livingstone & Lunt, 1992a), norms regarding the acceptability and management of debt, and strategies of controlling family finances are all in flux” (Livingstone & Lunt, 1992, p. 113). However, the “sophistication of retail markets is increasing the role of consumers. The greater empowerment of consumers has also led to greater responsibilities for them to manage their own affairs” (Commission of the European Communities, 2007, p. 3). The number of over-indebted households is at a high level and it has increased in recent years (Federal Ministry of Labour and Social Affairs, 2013).

The aim of this thesis is to investigate German over-indebted consumers’ perceptions of debt and their attitudes and norms toward future payment behaviour within the mail-order industry. In particular, this research could be significant for the German mail-order industries relation to how consumer indebtedness could be managed and reduced through their collaborative work. This accords with the German government desires as “over-indebtedness threatens the Government’s goal of improving the well-being of its citizens and

is therefore of serious concern” (Ministry of Justice, 2007, p. 4) and therefore of great interest for the association of the mail-order industry.

### **1.1 Over-Indebtedness in Germany**

Over the last 20 years the number of households in Germany unable to pay their debts has increased dramatically (Bundesministerium für Familie, 2004; Federal Ministry of Labour and Social Affairs, 2013). The term over-indebtedness has not been defined in a way which includes Europe as a whole; therefore no comparable Europe-wide statistics are available to date. This has led to a lack of information about the development, degree and status of over-indebtedness in the different EU Member States (European Communities, 2008; Korczak, 2003). “Such lack hampers the evaluation of policy measures and undermines any well-founded discussion about the effectiveness of prevention measures” (European Communities, 2008, p. 5). However, the European Community is working on finding a European solution for the containment of over-indebtedness and is mutually engaged in determining a definition (Knobloch & Reifner, 2012). According to a survey commissioned by the European Union in 2011:

“households are considered over-indebted if they are having – on an ongoing basis difficulties meeting (or falling behind with) their commitments, whether these relate to service secured or unsecured borrowing or to payment of rent, utility or other household bills. This may be indicated by e.g. credit arrears, credit defaults, utility/rent arrears, or the use of administrative procedures such as consumer insolvency proceedings” (Knobloch & Reifner, 2012, p. 12).

In the thesis the following definition will be used, from the German Federal Family Ministry: “A private household is over-indebted if its income is not sufficient for servicing debt on time (after accounting for the costs of living expenses) over a longer period” (Bundesministerium für Familie, 2004, p. 1). For comparison only, over-indebtedness is defined in the UK as: “Someone is over-indebted if they are struggling to keep up with payments and are suffering real financial hardship as a result” (Ministry of Justice, 2007, p. 3).

## - Over-Indebtedness in Germany -

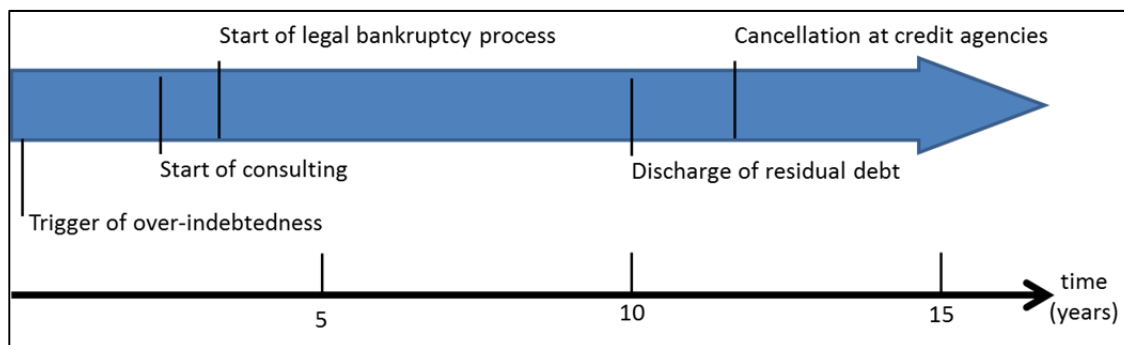
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The number of over-indebted households in Germany increased from 1.2m in 1989 to 3.13m in 2002 (Bundesministerium für Familie, 2004) and is expected to rise to 3.33m in 2013 (Creditreform Wirtschaftsforschung, 2013). Since the establishment of the Regulation on Insolvency Proceedings in Germany in 1999, the number of consumer bankruptcies had also increased steadily (Statistisches Bundesamt, 2009) and has remained at a level of approximately 100,000 per year new legal bankruptcies since 2007 (Statistisches Bundesamt, 2013a). With the amendment of the new German Insolvency Statute in 1999, the legislation created a legal institution that made it possible for over three million insolvent private households in Germany to file for bankruptcy. Up to that time, this possibility of ridding oneself of financial problems had been reserved solely to enterprises. Lechner (2009a) stated that it is completely incompatible with the modern idea of individualism to link personal misfortune or misconduct with lifelong, inescapable consequences.

The insolvency procedure became accessible to private debtors from all subpopulations. Private bankruptcy in Germany can be procedurally divided into stages, which debtors (§1 German Bankruptcy Act) have to go through in order to become debt-free in approximately seven years (Backert, Brock, Lechner, & Maischatz, 2007; for the legal process see Statistisches Bundesamt, 2013, p. 4; for an overview of the legal consumer bankruptcy processes in Europe, see Hergenröder, 2013). The legal bankruptcy process is transparent to authorized creditors who have access to different databases. For instance, the official Federal database (<https://www.vollstreckungsportal.de>) provides information about over-indebted consumers in Germany. The process of clearing debts lasts for an extended time-period of approximately 15 years (Knobloch & Reifner, 2012).

Figure 1 demonstrates the different stages of this legal process.

## - Over-Indebtedness in Germany -



**Figure 1: Legal process and stages of getting debt-free**

**Source:** adapted from Knobloch & Reifner (2012, p. 68)

In general, the prospective clients experienced an average waiting period of about 4.2 months to get an appointment with a debt counsellor and went through approximately 4.4 months of consulting before the legal bankruptcy process started (Knobloch & Reifner, 2012). When considering the psychological pressure and specific circumstances of those individuals, this is a very long time-period. After 6 years, debtors would be relieved of their debts if they met the legal procedures. However, their data is stored for at least an additional three years with a negative attribute concerning credit-worthiness by different credit agencies databases. This negative attribute has a significant negative impact on consumers' future shopping possibilities. For example, some mail-order companies have implemented a permanent online request to those credit agencies consumer databases as a part of their fulfilment process. A negatively "scored" customer will typically be refused the opportunity to pay upon receipt, or to use instalment payments. In sum, a time-period of about 15 years is necessary to not only become debt free, but to be regarded as having financial strength (Knobloch & Reifner, 2012).

Based on this process, a German mail-order company stands to lose its entire debt claim after seven years if the customer participated in the bankruptcy programme and did not earn money above a defined level after deductions based on requirements to pay child and spousal support. To avoid this loss, resulting from bad debts, the company needs to gain additional information about both the perception of debts and the attitudes and/or norms that impact the behaviour of German mail-order customers concerning payment. Using this information, a mail-order company can then either react to consumer demand

## - The potential risk for the mail-order industry -

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with new technical innovations or influence and counsel the government through its mail-order association. As a starting point it would be very helpful for the mail-order industry to gain knowledge about the main reasons for over-indebtedness and its evolution in the last several years.

### **1.2 The potential risk for the mail-order industry**

The increase of private bankruptcies had noticeable impacts on the mail-order industry. In 2006 a survey covering 33,000 heavily indebted consumers showed that the average debt at mail-order companies amounted to 1,975 € for over-indebted consumers who make use of distance buying. That meant an average debt of 564 € for all indebted consumers of this survey and not only those who had open debts within the mail-order industry (Angele, 2007). In 2012, there was a further increase of 5.8% to 597 € (Statistisches Bundesamt, 2013). According to a representative survey for Germany, approximately 30% of over-indebted households had open debts at mail-order companies (Knobloch & Reifner, 2013). Overall, 2.5% of all deferred payment credits in 2012 in Germany were not repaid, although debtors received several reminder letters (SCHUFA, 2013). This result provided insight into the financial loss experienced in the larger economy, and particularly in the retail and mail-order market in Germany. However, open debts at mail-order companies are the result of traditional payment methods in Germany used and offered, respectively. The majority of customers in a German mail-order-company pay upon receipt (61% according to a survey in 2007) and use the Internet - e-commerce- to order (Bundesverband des deutschen Versandhandel, 2008). Paying by invoice is a kind of consumer credit where a consumer has to pay the invoice within an agreed period (usually 14 days in the German mail-order environment). Therefore, companies today need a valid and cost-effective solution to answer the historically 5Cs regarding a credit (Thomas, 2000, p. 152):

- “Character of the person - do you know the person or their family?
- Capital - how much is being asked for?
- Collateral - what is the applicant willing to put up from their own resources?
- Capacity - what is their repaying ability. How much free income do they have?
- Condition - what are the conditions in the market?”

- The potential risk for the mail-order industry -

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Historically, this decision was based on a purely judgmental approach. Currently it is based on different statistical scoring approaches like regressions, neural networks, or classification trees (see e.g., Thomas, 2000; Yobas, Crook, & Ross, 2000; Desai, Crook, & Overstreet, 1996). However, different rules apply to the retail consumer finance market. Small retail loans are not under the same scrutiny as larger wholesale loans as funds and are typically provided to usually unassessed customers. This leads to the conclusion that single credit risk for this kind of loan must be miniscule (Allen, DeLong, & Saunders, 2003). Regarding the typically large amount of customers, those small consumer credits were significant for both success and cash flow of the mail-order company. Within mail-order companies, it is very common to use scorecards where customer-specific socioeconomic and behavioural aspects are applied (see Thomas, 2000, for an overview of historical and current credit assessment). The score value determines the statistical possibility of not receiving payment and impacts the variety of payment options offered to the customer. In the worst case, available options for potential mail-order consumers are sales authorized only by “cash on delivery” or secured methods like “credit card or PayPal.”

Typical German mail-order companies allow the free return of ordered items. Often the mail-order company has a pick-up service and pays the return postage fees for every order. That service makes it easy for a consumer to overcome the reticence to order a large number of items and services. Moreover, consumer rights have been strengthened by various laws, e.g. the “Fernabsatzgesetz,” which allow the customer to return the ordered products within 14 days and dissolve the contract without any costs. In the mail-order business, consumers and merchants are not able to see or touch merchandise and a lack of interaction with sales personnel is assumed (Dennis, Harris, & Sandhu, 2002; Liebermann & Stashevsky, 2002). The shopping experience and relationship differs from standard purchases in a face-to-face situation. However, “Internet shopping has won great favor with many consumers” (Lim & Dubinsky, 2005, p. 833).



## - The potential risk for the mail-order industry -

In general, German consumers are shifting an increasing part of their purchases to the mail-order market. The estimated turnover for 2013 for mail-order trade in Germany will be 43.5bn Euro, compared to 29.1bn in 2009 and has increased steadily over the last 20 years (e.g. 15bn Euro in 1990) (Bundesverband des deutschen Versandhandel, 2009; 2013a). The turnover of the mail-order-companies as part of the whole retail trade has increased constantly from 4.5% in 1986 to an expected 11.2% in 2013 (Bundesverband des deutschen Versandhandel, 2013). Currently, using the internet is a very common way to order goods in the mail-order business, for example 53.0% in 2009 (Bundesverband des deutschen Versandhandel, 2009). Figure 2 demonstrates both the increasing turnover of the mail-order industry in sum and the increasing share of e-commerce turnover in Germany. Due to new market entries (e.g., the shoe retailer Zalando) and expansion of typical “brick-and-mortar” retailer (e.g. Galeria Kaufhaus) in the e-commerce environment (called “clicks and bricks” (Rudolph, Rosenbloom, & Wagner, 2004, p. 56)), the challenge of minimizing unpaid debts is increasing and a potential issue for the German economy.

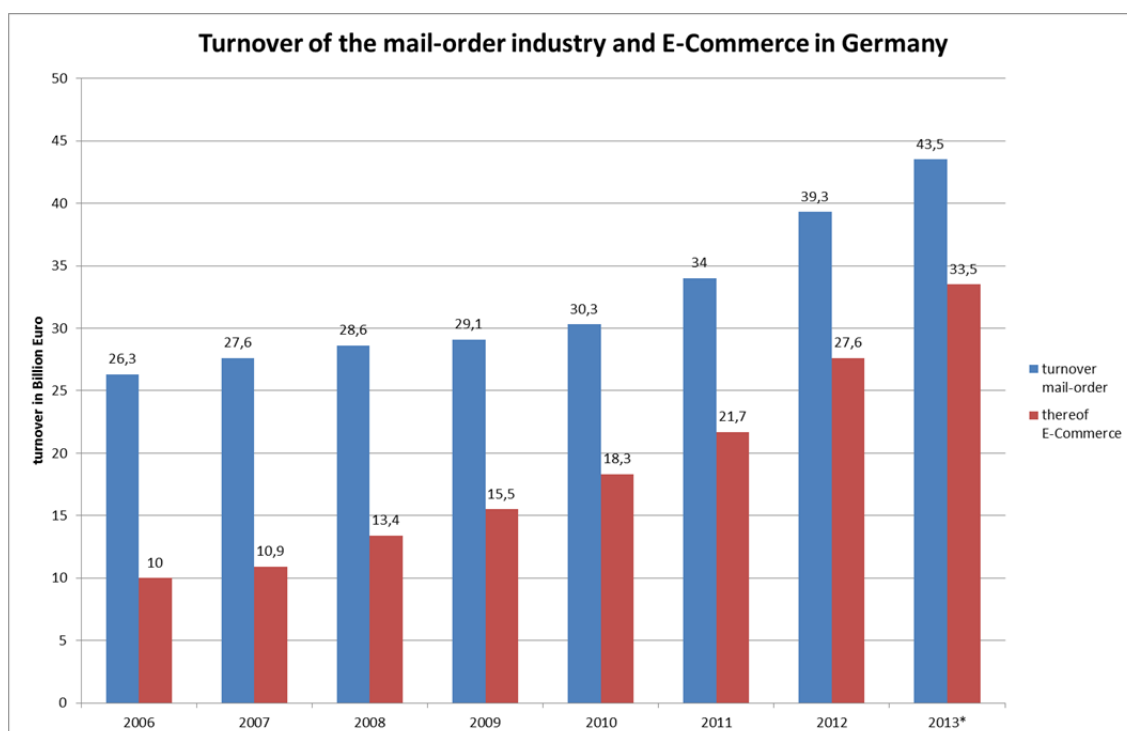


Figure 2: Development of mail-order turnover in Germany

Source: adapted from Bundesverband des deutschen Versandhandel (2013a) where values for 2013 are estimated (marked \*).

Associated with this development is an increase of bad debts at mail-order companies coming from over-indebted consumers (Angele, 2007). Many

- The potential risk for the mail-order industry -

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customers order several different goods or services but neglect to pay the invoice or part of their monthly instalments. A survey by EOS in 2009 showed that 2.1 % of the arrears in Germany do not get paid (UK 1.4%) and only 77% are paid within the credit period (UK 59%) (EOS, 2009). The payment terms are usually uncomplicated. Most German retail companies set a credit limit and allow the customers to pay upon receipt, to pay in relatively small instalments (e.g. within 3, 6, 12 or 24 months) or to make use of additional payment methods (e.g. credit cards, PayPal). Paying in advance or via credit card is not a usual term of payment in a typical mail-order company in Germany. In 2008 approximately 81% of the customers took advantage of paying by invoice or instalment (Bundesverband des deutschen Versandhandel, 2008).

My personal experience from 16 years of practical work within the mail-order industry illustrates that payment behaviour of potential consumers cannot easily be predicted as a result of a mathematical equation. Mail-order companies already conduct a number of analyses to minimize risk (e.g. data mining, matching the address with several databases, etc.). The company's risk could be reduced by using all available information within external consumer-financial databases for typically incidental fees. Therefore, the stored customer data were only sporadically enriched by specific consumer information e.g. by the General Credit Protection Agency, otherwise the fees could exceed the potential benefit of the order. These Agencies have specific information due to their connections to different databases (e.g. affirmation in lieu of an oath, assurances, and different mail-order companies). Figure 3 provides an overview about the debt situation in Germany and demonstrates the available information of 2010 and 2013 concerning assessment of the agency about bad payment behaviour by rural district. The data suggested that the south of Germany had a much lower rate of over-indebted households (<3%) than the rest of Germany and theoretically the inhabitants would have had a lower risk of bad debts. Moreover, the maps emphasize that the situation did not change between 2010 and 2013 and over-indebtedness is a not a temporary problem.

## - The potential risk for the mail-order industry -

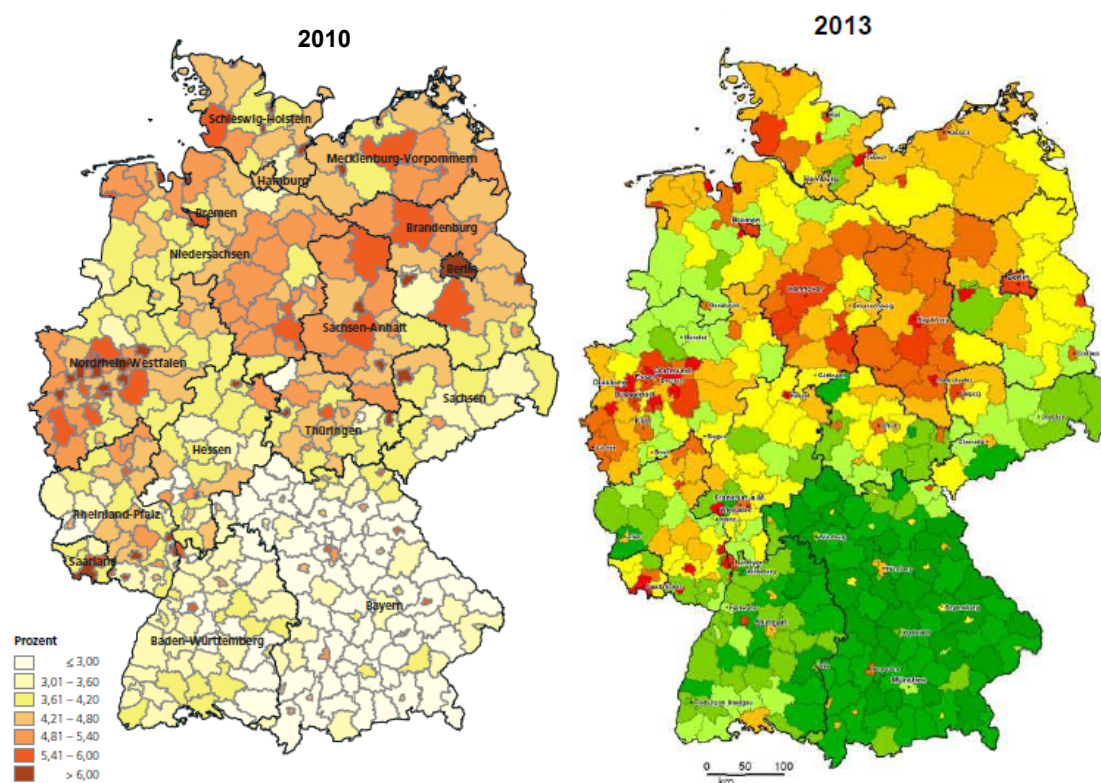


Figure 3: negative financial situation of consumers by rural district 2010 and 2013

Source: 2010 (left): SCHUFA (2011); 2013 (right): Creditreform Wirtschaftsforschung (2013, p. 14) - red= high level, yellow= moderate level, green= low level of consumer over-indebtedness

Using the aggregated information available in different databases was an important step of risk-prevention and fraud-detection for mail-order companies in Germany. Furthermore, making use of new statistical technologies (for example neural networks) could improve forecasting accuracy (Thomas, 2000). However, based on my professional experience, customers who had historically paid their invoices or monthly instalments on time could also fall behind on their paying obligations.

In order to minimize the risk of bad-debts, official statistics demonstrated further indicators. For instance, one indicator showed that over-indebted customers had a limited prepaid bank account (64,1% of financial advance seekers in 2010) or did not have a bank account at all (9,3%). Table 1 describes the percentage of bank-account owners in relation to their main cause of being over-indebted.

## - Research questions, objectives and propositions -

bank account type	Unemployment / reduced hours	Sickness	Divorce / Seperation	consumer behaviour	failed self- employment
no own account	12.0%	10.4%	9.3%	9.3%	17.1%
no own account, usage of third-party account	4.8%	3.8%	4.8%	5.5%	8.6%
<b>no own account or usage of third-party account</b>	<b>16.8%</b>	<b>14.2%</b>	<b>14.0%</b>	<b>14.8%</b>	<b>25.8%</b>
account on prepaid credit basis	60.9%	63.5%	64.7%	64.1%	56.9%
standard giro account	22.3%	22.4%	21.2%	21.1%	17.3%
<b>existing account</b>	<b>83.2%</b>	<b>85.8%</b>	<b>86.0%</b>	<b>85.2%</b>	<b>74.2%</b>

**Table 1: Bank account availability in relation to over-indebtedness 2011**

Source: adapted from Knobloch & Reifner (2012, p. 64)

However, this indicator of potential bad-debts due to the failure of possessing a current bank account is of limited utility for a mail-order company. Usually the company has only an address, or maybe a date of birth and in the best case a customer track record of previous purchases. Thus, a typical retail company has no information concerning its customers' banking habits. Based on available and affordable financial data, the company has to decide on an individual basis whether to fulfil the offered contract or not.

In general, the risk of unpaid debts for a mail-order company due to customer behaviour and attitude is very high and statistically volatile. Over-indebtedness in contemporary society is not caused by a single reason (European Communities, 2008). It is more probable to think of a combination of different factors, such as low income or divorce (European Communities, 2008). "Poor money management and over-commitment will tend to compound the problems faced" (European Communities, 2008, p. 27). Currently, no legal change in terms of payment in the German mail-order market to avoid bad debts is expected. At this time, new technologies do not exist that might improve the ability to forecast the likelihood of individual consumer payment in the mail-order industry. In order to reduce additional losses from unpaid invoices, the focus of this research is to foster an understanding of payment behaviour and particularly of customers in the mail-order industry.

### 1.3 Research questions, objectives and propositions

There are countless influences and causes for over-indebtedness (Angele, 2008). Many of those are unpredictable and lie beyond the individual's realm of influence and include: unexpected illness, being involved in an accident, or falling victim to crime (Knobloch, 2009). On the other hand, some aspects of becoming indebted are self-determined by individual behaviour and attitude.

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Therefore, a fundamental component of this thesis is focused on obtaining deeper insights into personal beliefs and behaviour and not concentrating only on the final outcome, e.g. debts. Based on my professional experience, there appear to be customers who had criminal intent with respect to payment (e.g. use of unfunded credit cards, and using different family names). These people could be held responsible for their own actions and therefore could influence a negative outcome of mal-behaviour (from the company's viewpoint). However, based on professional experience, this group comprises the minority of mail-order customers and is further reduced by technical development such as IP-address-check and extended secure for credit card payment. The real problem is unpaid debts of "classic" customers, who lack any criminal intent. Therefore the company needs to know what influences personal behaviour in order to understand the underlying causes of behaviour. A company could introduce supplementary preventative mechanisms or foster its association work to achieve a legal improvement of the situation of over-indebted people with a better understanding of beliefs and influences on behaviour.

In sum, to avoid losses from bad debt, a company needs to gain information about the attitudes and payment intention of potential mail-order customers. This awareness could help to identify the key issues and primary requirements for granting future payment terms. Furthermore, the majority of the German mail-order companies are members of the German mail-order association and members of the European E-commerce and Mail-Order Trade Association which bring together nearly 2,500 companies across Europe. The associations act as liaison between the mail-order industry and legislators. Therefore, they are a competent partner for political decision-makers for any relevant legislation that could impact business practice. Using the information about customers' attitudes and payment intention a mail-order company can either react to consumer demand with revised payment opportunities, or influence the governments through their work within the German or European mail-order associations.

This thesis focuses only on over-indebted people due to the following causes. First, based on personal and professional experience, consumer over-

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indebtedness has a negative image and assumed reasons for personal bankruptcy are often linked with personal failure and therefore social ostracism. However, the prospective payment behaviour of over-indebted mail-order customers are neither well known nor robustly investigated. Second, mail-order companies try to avoid incurring bad debts by considering past behaviour of consumers. This is usually the only available information of their potential customers. If the company has no information about the customer, demographic similarities are employed to assess risk. For example, locations with a higher ratio of consumers with unpaid bills might indicate that a customer living in that social environment is a potential risk. This approach has three negative implications for both the consumer and the society at large: (1) due to the legal process of becoming debt-free, current over-indebted customers are treated differently by the mail-order industry, if mail-order companies know that they are over-indebted (e.g. will receive their goods only by cash on delivery with higher payment fees) (2) Independent neighbours could be forced by the same, not customer-friendly treatment due to similarities and finally (3) ordering by mail-order could therefore be seen as inconvenient and companies could be faced with negative customer reviews. Consequently, current and potential mail-order consumers could choose to buy from retail stores. Moreover, companies could change their overall payment terms and accept only secure payment methods for goods and services, which is potentially inconvenient for consumers (e.g. necessity of personal authentication before ordering, risk of receiving the paid goods). Finally, over-indebted customers are in the situation where they cannot or do not pay their bills. The bad debt loss of over-indebted consumers is real and not a theoretically possibility of a credit scoring. Gaining deeper insights into their attitudes, social norms, and beliefs could proactively prevent further debts of current and potential customers.

A theoretical framework and linked knowledge will be used to gain deeper insights into behaviour. Regarding successfully applied theories in practical context, one theory is distinctive for its clarity and relevance: the theory of planned behaviour (TPB), continuously developed and approved by Fishbein and Ajzen (Ajzen, 1991). The TPB is the theoretical framework for several studies in different areas of science. The theory was applied in several fields of

## - Research questions, objectives and propositions -

research regarding human behaviour, e.g. healthcare (Norman & Conner, 1993; Ajzen & Timko, 1986), environment (Bamberg & Lüdemann, 1996), and debt behaviour (Chudry, Foxall, & Pallister, 2011). The theory was also successfully used in the context of negative behaviour such as predicting dishonest actions (Beck & Ajzen, 1991) or cheating behaviour (Atmeh & Al-Khadash, 2008). Meta-analytic review supports the theory's predictions (Armitage & Conner, 2001); therefore, this theoretical framework is of great relevance to this research (see A-6 in the appendix for more meta-analytical findings and citation maps of the TPB, demonstrating its importance).

Figure 4 presents the extension of the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975), concluding with the TPB (Ajzen, 1991) by adding the construct of perceived behavioural control (PBC). Furthermore, the influences of beliefs are also illustrated. Both theories will be explained and analysed in depth in section 3.3.

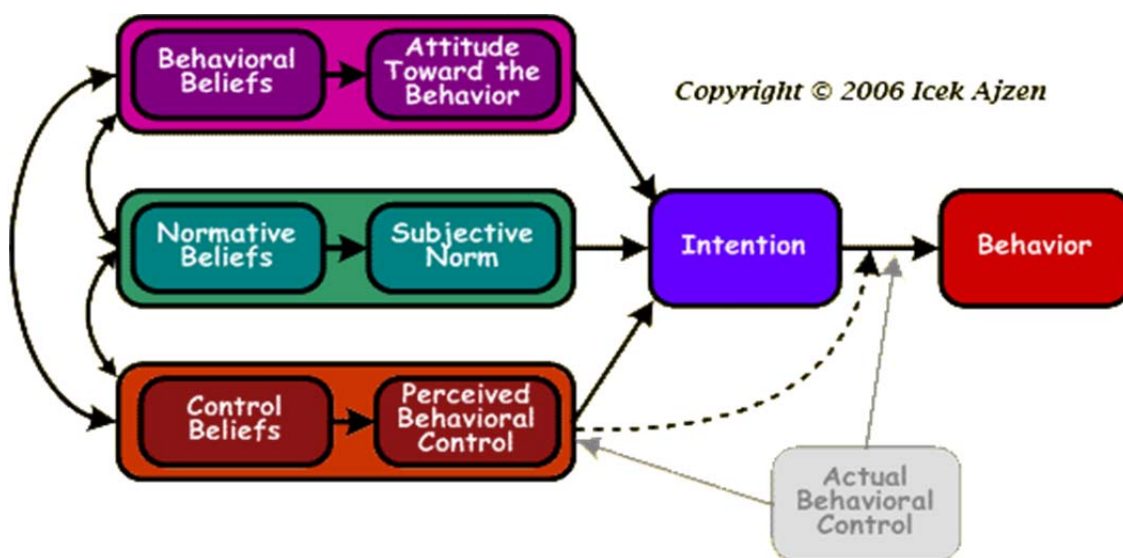


Figure 4: Diagram of the theory of planned behaviour

Source: Ajzen, (2009)

Figure 4 demonstrates the key constructs of the theory. In particular, that beliefs are important determinants of an individual's intentions and actions (Ajzen, 1991). With the aim of explaining human behaviour and not just merely predicting it (e.g. based on historical data), the TPB deals with those antecedents of attitudes, subjective norms, and perceived behavioural control which determine future intentions and actions (Ajzen, 1991). The TPB assumes

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that behaviour is a function of salient beliefs, relevant to the behaviour (Ajzen, 1991). In both the TRA and the TPB, those salient information or beliefs are related to attitude within an expectancy-value framework (Peak, 1955; as cited in Hankins, French, & Horne, 2000) which indicates “beliefs about the likelihood that the behaviour being studied will produce each particular outcome (the “expectancy” component) and his/her beliefs regarding the desirability of that outcome (the “value” component)” (Hankins, French, & Horne, 2000, p. 153).

In sum, based on current practical relevance, the aim of this thesis is the broadening of academic knowledge of payment behaviour in the growing mail-order environment in Germany. I therefore seek to provide answers to the following questions:

1. Has debt increased among German consumers, and if so, why has it?
2. How is debt perceived among German over-indebted consumers?
3. With reference to the theory of planned behaviour, what are the influences of beliefs, attitudes, subjective norms, and perceived behavioural control towards the intention of debt payment on time?
4. What lessons emerge to a) understand over-indebtedness in German consumers and b) enable the German mail-order industry to manage customer-debt in the future?

In order to answer these questions I am going

1. To investigate how debt has increased among German consumers and the reasons why.
2. To explore how debt is perceived among German over-indebted consumers.
3. With reference to the theory of planned behaviour, to analyse the influences of subjective norms, beliefs, attitudes, and intentions on payment debt at mail-order companies on time.
4. To improve the explanation of over-indebtedness among German consumers.
5. To develop guidelines to improve the management of customer debt more effectively in the German mail-order industry in the future.



### **1.3.1 Question 1: Development of consumer debt in Germany**

Based on my own professional experience, over-indebtedness and shortfalls in payment is an increasing problem, especially for the mail-order industry.

**Research Question:** *Has debt increased among German consumers, and if so, why has it?*

**Proposition 1:** There is an increase of over-indebtedness among German consumers.

**Proposition 2:** The causes for over-indebtedness are widespread.

### **1.3.2 Question 2: Perception of debt among German consumers**

The legal process of becoming debt-free for individuals was established in 1999 in Germany. There might be an expectation among consumers that debt is normal in Germany; however, it is expected that unpaid invoices are not the normal case.

**Research Question:** *How is debt perceived among German over-indebted consumers?*

**Proposition 3:** There will be a uniform expectation about increasing debts in Germany among over-indebted German consumers.

**Proposition 4:** There will be a uniform negative tenor about the debt-situation (“unpaid invoices are not normal”) in Germany among over-indebted German consumers.

### **1.3.3 Question 3: Investigation of further payment at mail-order companies**

Knowing the causes of over-indebtedness and the perception of debt among consumers will help give an overview about the current situation of over-indebtedness for the German mail-order industry and more importantly, the personal influences on further payment behaviour. The application of the TPB will determine the influences of different aspects on payment behaviour.

- Research questions, objectives and propositions -

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**Research Question:** *With reference to the theory of planned behaviour, what are the influences of beliefs, attitudes, subjective norms and perceived behavioural control towards the intention on payment debt on time?*

**Proposition 5:** Attitude of paying the debt on time and the behavioural intention to do so will be positively related and statistically significant.

**Proposition 6:** Subjective norms of paying the debt on time and the behavioural intention to do so will be positively related and statistically significant.

**Proposition 7:** Perceived behavioural control of paying the debt on time and the behavioural intention to do so will be positively related and statistically significant.

This proposition outlines the superiority of the TPB over the TRA. The inclusion of perceived behavioural control will add significantly to the prediction of payment intention.

**Proposition 8:** The relationship between behavioural beliefs about paying the debt on time and the attitude towards the act to do that will be positive and statistically significant.

**Proposition 9:** The relationship between normative beliefs about paying the debt on time and subjective norms will be positive and statistically significant.

**Proposition 10:** The relationship between control beliefs about having the resources to pay the debt on time and perceived behavioural control will be positive and statistically significant.

The propositions were related to the standard model of the TPB (Ajzen, 1991) and formulated in accordance with the outcome of meta-analytic reviews (e.g. Armitage & Conner, 2001) and recent research (e.g., Knabe, 2012; Truong, 2009; see also Kennedy, 2013).

#### 1.3.4 Question 4: Explanation and prevention of bad debts

A survey based on the TPB will provide deeper understanding of payment behaviour of over-indebted consumers.

**Research Question:** *What lessons emerge to a) understand over-indebtedness in German consumers and b) enable the German mail-order industry to manage customer-debt more effectively in the future?*

The answers to this question will be presented as concrete suggestions for the industry and its representatives based on the findings of questions 1 to 3. Research question 3 is a particularly important basis for those practical recommendations.

#### 1.4 Significance of this study

Through this study, Ajzen's (1991) theoretical framework (TPB) was first applied in the environment of payment behaviour of over-indebted consumers to mail-order companies where payment upon receipt or small instalments is common. It leads to a better understanding of different aspects that are necessary for on time invoice payment (e.g., norms, attitudes, behavioural control and their relationships). Moreover, this study examined whether the approved theory is appropriate to explain future payment behaviour of different over-indebted subgroups by assessing its theoretical constructs. Employing the model assessment and statistical values such as coefficient of determination ( $R^2$ ) and path coefficients it demonstrates the power and usefulness for practical application within the mail-order industry. Additionally, the study augmented both the perception of debts within German society and the understanding of personal over-indebtedness with its current status.

This thesis used structural equation modelling in combination with extensions of the TPB. In particular, the relationship between past behaviour, moral norms, and perceived behavioural control towards payment intention was investigated. For the academic world, this study adds knowledge to social scientific theory applying a specific model of the TPB to debt and payment aspects. The study also examined gender specific differences in payment behaviour and highlighted the possible significance of those variations in case they are

statistically significant. In addition, it analysed whether people living in special circumstances differ in their payment intention or more specifically the intention of not-imprisoned consumers contrasted with imprisoned consumers with a criminal background. Furthermore, the outcome of recent studies that applied a similar methodological approach (e.g. Knabe, 2012) could potentially be enhanced, revised, compared, and / or verified.

While it is important to know what determines the usage of mail-order shopping and how to generate orders, ensuring that those orders get paid is an important economic aspect not only for an individual company, but also for the industry as a whole. Due to the spatial and temporal separation between the consumers and retailer, mail-order behaviour is different than traditional behaviour (Pavlou & Fygenson, 2006). E-commerce and mail-order in general are platforms for the exchange of goods, services, and payment among entities that never meet (Ba & Pavlou, 2002). This investigation is therefore a notable exception of consumer behaviour. Moreover, it enriches the study of shopping behaviour as it determines the end of the process, the act of payment. Therefore, studies that investigate factors affecting e-commerce (e.g., Pavlou & Fygenson, 2006; Wang, Chen, Chang, & Yang, 2007; Al-Swidi, Behjati, & Shahzad, 2012; Javadi, Dolatabadi, Nourbakhsh, Poursaeedi, & Asadollahi, 2012) could be enhanced and broadened with a focus on payment behaviour. The underlying TPB has rarely been used to investigate debt behaviour, (for examples see Chudry, Foxall, & Pallister, 2011; Kennedy, 2013), therefore, this doctoral study provides a new prospect to investigate and explain payment behaviour in the e-commerce business and mail-order industry in Germany. This framework could be used and replicated in further studies concerning payment behaviour.

### **1.5 The structure of the thesis**

As mentioned above, investigation concerning payment behaviour in the German mail-order industry is the subject of this thesis. Contextual information concerning over-indebtedness in Germany is provided in chapter 2. In chapter 3, a literature review is submitted which represents the effort to gain a deep understanding of the subject matter. Based this review and appraisal, the doctoral methodology is presented and justified in chapter 4. A crucial point in

## - The structure of the thesis -

this chapter is the design of the questionnaire and the statistical model of analysis (in this case structural equation modelling). Chapter 5 demonstrates the application of the TPB to payment intention. Within this chapter the empirical outcome and statistical validation of the findings will be highlighted. The answers to the research questions and subsequent findings are recapitulated in chapter 6. The discussion of the outcome is presented in chapter 7. Chapter 8 emphasizes managerial implications of the study, which is reflected in chapter 9. Finally, chapter 10 concludes the thesis and highlighting its contribution, research limitations, and recommendations for industry and additional research on payment behaviour.

Table 2 provides an overview of this doctoral research process and its stage specific aims.

Research process	Chapter	Aims
<b>Introduction</b>	1	Present an overview about the current state of over-indebtedness and the mail-order industry.
<b>Contextual information</b>	2	Demonstrates the legal process of private bankruptcy.
<b>Literature review</b>	3	Understand the process and key factors of becoming over-indebted with its likely end in personal bankruptcy. Review of theoretical frameworks for behavioural explanation.
<b>Methodology</b>	4	Elaboration of research methods, research ethics, and data analysis strategy. Design of the pilot and resultant final study based on questionnaires. Description of the data gathering process.
<b>Data analysis</b>	5	Description of data analysis process using structural equation modelling. Discussion of the statistical justification of the models.
<b>Results</b>	6	Outlining the results of the research questions and propositions.
<b>Discussion</b>	7	Discussion of the key factors of payment intention within the mail-order industry.
<b>Managerial implications</b>	8	Emphasizes the implications for the management of a mail-order company.

Research process	Chapter	Aims
<b>Reflective commentary</b>	9	Review of the doctoral journey with a focus on the methodology and interviews with debt counsellors.
<b>Conclusion / Recommendation</b>	10	Key findings provided, conclusion of the thesis with an emphasis on its contribution to knowledge, research limitations and recommendations for mail-order industry and further research on payment behaviour.

Table 2: Research structure of the thesis

## 1.6 Summary

In this chapter, the current conditions regarding personal over-indebtedness were outlined. Moreover, the legal process of becoming debt-free and the potential risk and relevance for the growing mail-order market were explained. However, the mail-order industry possesses the dual challenge of offering traditional unsecured payment methods like paying upon receipt combined with the need to minimize the risk of unpaid debts. Knowledge about the perception of debt and future payment behaviour is necessary to understand how over-indebted customers might potentially react and why. The correspondent research questions and propositions are outlined and the purpose and significance of this study highlighted.

In sum, many surveys in recent years asked why people get over-indebted and tried to identify the main causes for that issue (see Angele, 2008; Statistisches Bundesamt, 2013). These surveys show the results of a long-term behaviour among consumers. The German legislation reacted to the result of being over-indebted with the amendment to the private insolvency act in 1999, which created the possibility of private bankruptcy and therefore the chance for “a new life.” A survey among Dutch people in 1980 had already proven that difficult debt situations are less common among people who carefully contemplate the decision for taking out a loan (Dessart & Kuylen, 1986). The question of how and why people behave in a payment situation is highly significant in that it may greatly impact their lives. Therefore, it seems obvious that “Explanations for personal debt must be interdisciplinary, drawing on a range of social science disciplines” (Livingstone & Lunt, 1992, p. 114). Based on that assertion of

- Summary -

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Livingstone and Lunt (1992), this thesis needs to consider aspects in economics, such as life cycle models, and demography (distinctive events in life). Additionally, to gain a deeper understanding, sociology (groups and social norms) and social psychology (people's attitudes and values) have to be incorporated (Livingstone & Lunt, 1992).

In the following chapter payment behaviour and its underlying psychological theories will be discussed.

## CHAPTER 2: CONTEXTUAL INFORMATION FOR OVER-INDEBTEDNESS IN GERMANY

Over the individual stages of a life cycle, households accumulate and dissolve wealth. That means within periods of varying duration in the personal life cycle, households might be faced with credits and debts (Disney, Bridges, & Gathergood, 2008). In particular, members of young households have relatively high needs (e.g. building a house), but low earnings, relative to their incomes later in their lifetime. Due to estimated future income growth, it is very probable that a household will utilize borrowing and saving to accumulate and dissolve debts and assets over its individual lifetime (Disney, Bridges, & Gathergood, 2008). Therefore, debt can be seen as “negative savings with its volume being part of an optimal life cycle plan” (Cameron & Golby, 1990, p. 242). In sum, “credit is an everyday feature of life for many people” (Ministry of Justice, 2007, p. 4) and socially accepted (Bender, Hollstein, Huber, & Schweppe, 2013).

Granting credit (lender) and acquiring debt (borrower) are standard financial procedures in contemporary society where lenders receive a return, such as interest, and the borrowers typically pay a compensation for the possibility of receiving money or goods that they do not yet own. The borrower has debts and therefore is indebted to someone at varying levels. In the mail-order business, a consumer credit is a kind of customer service and fees are not always mandatory. Thus, the customer has a financial obligation that typically lasts for several months. This kind of indebtedness is not relevant for this thesis, because it is a common practice: the borrowers pay their obligation in small instalments or the whole invoice in total. Moreover, the borrowers have the financial means and ability to pay their obligation deliberately.

However, an issue arises if the debtor is unable to pay the financial obligations, particularly different consumer credits. The extent of debt, the probability and possibility of repayment of financial obligations in the future is of great importance for the definition of whether or not a consumer converts from indebtedness to over-indebtedness. The applied definition for over-indebtedness in this thesis is: a “private household is over-indebted if its income



is not sufficient for servicing debt on time (after accounting for the costs of living expenses) over a longer period” (Bundesministerium für Familie, 2004, p. 1). The emphasis on “over a longer period” is very significant. In the case of over-indebtedness, the consumer has liabilities that cannot be immediately satisfied, and will not be satisfied for an extended period of time (typically several months or years). The meaning of the term debt changes from “not owning the goods and paying a charge” to “not having the possibility to repay for a longer period or not at any time.” Therefore, in the extreme, severe over-indebtedness results in private bankruptcy where debts will not be satisfied at any time.

Severe over-indebtedness is the main focus of this thesis. The individuals included in the target population are those who have profound financial difficulties, those who are unable to pay their financial obligations, typically seeking debt counselling, and at the extreme end of the spectrum, those in the legal process of filing for private bankruptcy.

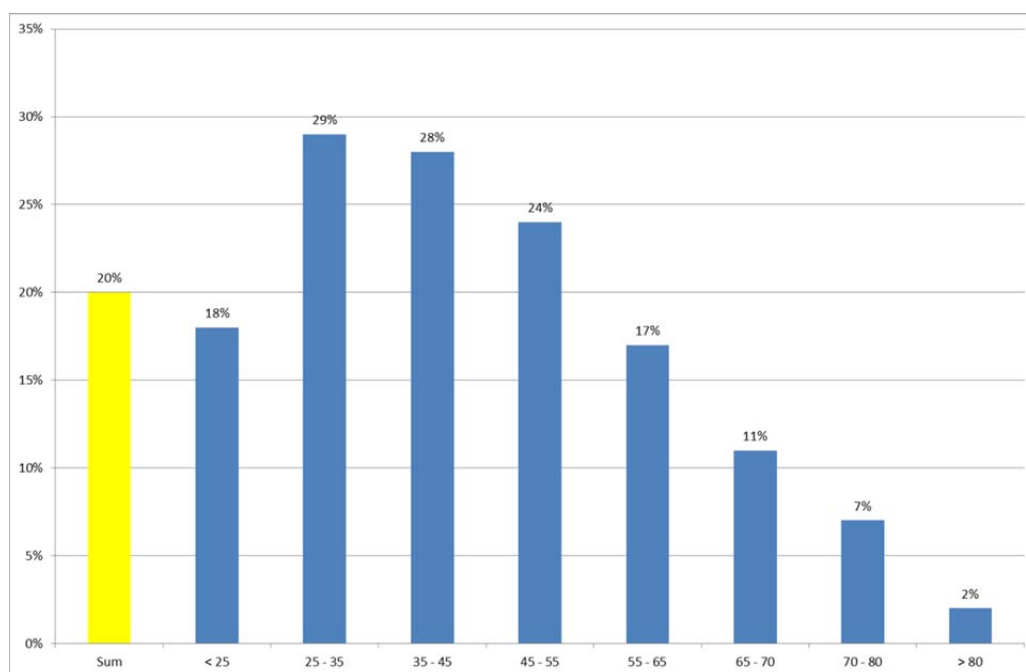
Granting credit has inherent risk of facilitating over-indebtedness due to unexpected causes, such as illness, unemployment or divorce. In sum, due to the uncertainty of the future, even a conservative household may experience over-indebtedness as a consequence of different unanticipated adverse shocks (Disney, Bridges, & Gathergood, 2008). The following section highlights the development of consumer credit with its potential threat for over-indebtedness.

## **2.1 Development of consumer credit**

It is common practice that consumers can buy expensive goods or services (e.g. a TV, car, and holiday) and pay the balance over several months or sometimes several years. This payment method allows consumers the ability to distribute the costs over a longer time span and affords them the opportunity to benefit from products and services during their lifetimes (Ministry of Justice, 2007). According to the statistics of SCHUFA, in 2011 fewer instalment loans were signed in than in 2010. In 2010 there were 7.3m new contracts, in 2011 the number of new contracts decreased to 7.2m, which seems large in relation to the German population. Accordingly, the total number of instalment loans decreased from 17.3m in 2010 to 17.2m contracts in 2011. With regard to the

## - Development of consumer credit -

failures in the consumer finance sector there was no decline between 2010 and 2011. The comparison of these two years demonstrates the constant high level of consumer credits in Germany (see Figure 6). Moreover, it emphasizes that length of these credits is usually very low and suggests that these credits are used to finance consumer goods or services with low invoice amounts. According to a survey in 2008 approximately 20 per cent of the German consumers use consumer credit (see Figure 5 for usage of consumer credits subject to age of creditor) (Knobloch & Reifner, 2012).



**Figure 5: Survey: Consumer Credit by consumers age in 2008**

**Source: Knobloch & Reifner (2012, p. 37); question: “Have you or other household members taken use of a consumer credit?”; consumer credit is defined: “credit to buy consumer goods (e.g., car, furniture, holiday) and advance money from individuals”; basis: n=56,275**

Figure 6 shows an increase in consumer credit in the 1990s, which has remained at this level for the past 10 years. Germany had the highest consumer loan portfolio of 226.8bn Euro in 2010 in Europe (compared to France 138bn, Spain 94bn, Italy 54.3bn and Portugal 21.5bn Euro) (Commerz Finanz, 2010).

- Development of consumer credit -

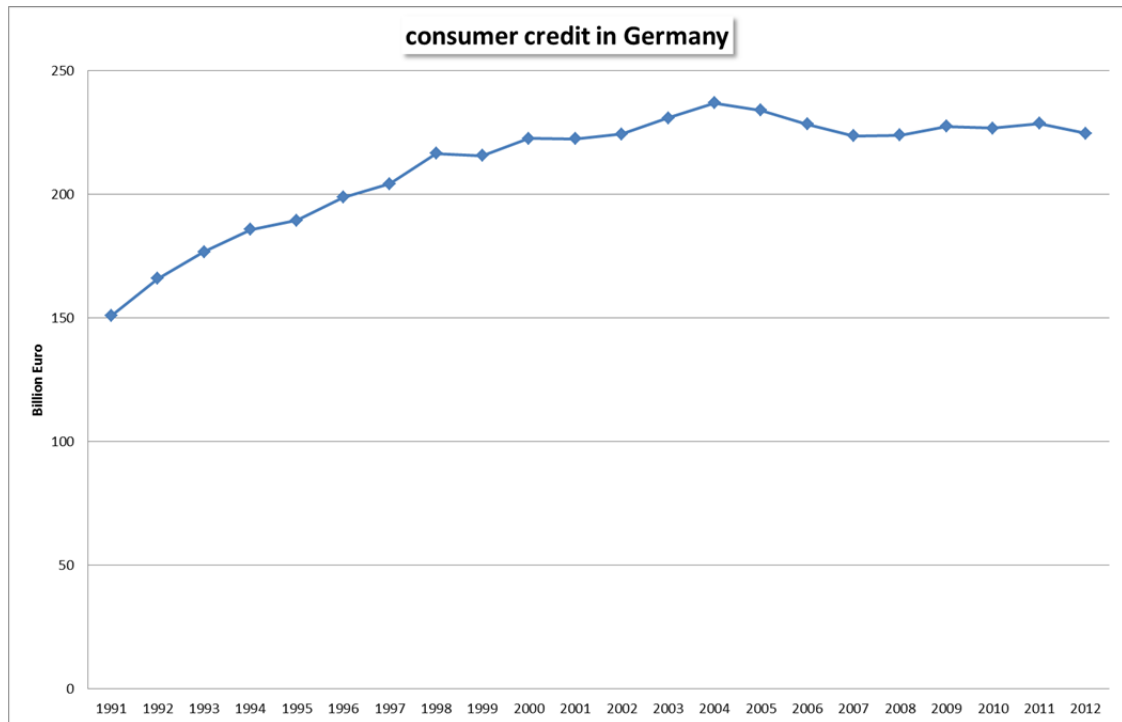


Figure 6: Consumer credit in Germany in Billion Euro

Source: German Federal Bank (2013)

The influence of structure and culture on the development of consumer credit is summarized graphically in Table 3 (Braucher, 2006).

Structures	
<p>1. Driving Supply of Credit</p> <ul style="list-style-type: none"> <li>• Regulatory environment (deregulation)</li> <li>• Creditors' sophisticated techniques (e.g., marketing, risk-spreading, collection)</li> <li>• Weak competition in some sectors</li> </ul>	<p>2. Driving Demand for Credit</p> <ul style="list-style-type: none"> <li>• Income insecurity/wage stagnation</li> <li>• Lack of health insurance</li> <li>• Other safety net holes (disability, unemployment insurance)</li> <li>• Family break-up</li> <li>• Cognitive biases (e.g., optimism)</li> </ul>
Culture	
<p>3. Affecting Supply</p> <ul style="list-style-type: none"> <li>• Ideology of free market</li> <li>• Hard-edged creditor culture:                             <ul style="list-style-type: none"> <li>▪ Marketing to already over-indebted</li> <li>▪ Targeting disadvantaged</li> <li>▪ Exploiting minority culture</li> <li>▪ High-pressure collection</li> </ul> </li> </ul>	<p>4. Affecting Demand</p> <ul style="list-style-type: none"> <li>• Culture of satisfying desires</li> <li>• Raised expectations (TV images)</li> <li>• Borrowing more accepted</li> <li>• Saving less common</li> <li>• Lack of financial sophistication</li> </ul>

Table 3: The influence of structure and culture on the growth of consumer credit

Source: adopted from Braucher (2006, p. 15)

Higher income households were more likely to have greater instalment debt and it could be argued that credit usage is a sign of prosperity (Katona, 1975; as cited in Lea, Webley, & Walker, 1995). By contrast, different studies demonstrated that debt is more characteristic for households having lower earnings and higher expenses (Cameron & Golby, 1990, 1991; Lea, Webley, & Walker, 1995; Knobloch & Reifner, 2013). These findings and the outcome of interviews with debt counsellors emphasize the possible threat of granting credits for households with both higher and lower earnings. The debt counsellors confirmed that their clientele are consumers from a spread of social groups, so both academics and individuals with low education. Households with a higher income had (by trend) greater debts in case of personal bankruptcy, because their financial investment and subsequent debts are much higher than those of households having lower earnings.

This section demonstrated the high level of consumer credits in Germany and emphasizes the potential threat to the German consumers in case of adverse shocks to the household, in particular unemployment, divorce or separation, and illness. The following section explains the legal process of private bankruptcy in Germany and the important role of debt counsellors within this process. In general, the “reason for the initiation of insolvency proceedings [...] is the permanent not temporary insolvency of the debtor” (Braun, 2006, p. 62). This thesis considers only *over-indebted* consumers; therefore the direct contact of consumers with those counsellors qualifies the relevant consumers, as being those who have serious financial difficulties and are considering the legal process of private bankruptcy.

## **2.2 Legal and administrative process of over-indebtedness in Germany**

With the amendment of the German Insolvency Act in 1999, “the legislature intended to give debtors a second chance and an opportunity of being reintegrated into economic life” (Braun, 2006, p. 60). The German Insolvency Proceeding for individuals has three distinct stages and encompasses all current assets of the debtor and any additional assets gained during the private

bankruptcy proceeding (Braun, 2006). Based on the outcome of each stage, the debtor has specific responsibilities and duties in order to become debt-free.

**Stage 1: out-of-court settlement** (Braun, 2006, Statistisches Bundesamt, 2013)

The debtor must contact all creditors in order to calculate the current debts and develop a debt adjustment plan. The creditors are legally obligated to disclose the current amount of debt. Based on this data, the debtor and the creditors can arrange an out-of-court settlement. Without exception, all creditors have to accept the terms of the negotiated payment plan, or the entire agreement fails. If the debt adjustment plan is accepted by every party, the bankruptcy process ends at this stage. However, in case of a failed debt adjustment plan, the debtor needs a certificate of failed settlement issued by a legally accepted institution or person (§ 305 InsO) to legally proceed further in the private bankruptcy procedure. The legally-accepted institutions are typically charitable organizations with trained debt counsellors offering consultation free of charge, lawyers, tax advisers, or notaries. Usually, the settlement is conducted with the support of debt counsellors. Therefore, they know the personal circumstances of their clients in detail. During this stage, the debtor is legally obligated to receive an in-depth consultation and assessment of their current earning capacity and financial circumstances (Braun, 2006).

**Stage 2: judicial debt clearing procedure** (Braun, 2006, Statistisches Bundesamt, 2013)

Within six months after an unsuccessful out-of-court settlement, the debtor has the possibility of a judicial proceeding. The debtors who choose to be released from their debts must file a request to initiate insolvency proceedings at court and must include the rejected debt adjustment plan with an explanation of the causes for the plan being unsuccessful. Moreover, the debtor has to provide a record of all available assets and income. Based on that information, the court process includes a second attempt at reaching agreement regarding the debt adjustment plan. The court could overrule the objection of individual creditors if the content of the plan is suitable. A requirement for this substitution of the court is that a minimum of 50% of creditors are in agreement with the plan and the

total of their claims account for a minimum of 50% of the total debt. In the absence of a prepared debt adjustment plan or where creditors have objected to the plan without the possibility for a substitution, a simplified insolvency procedure is carried out. In order to provide a faster and easier method to handle proceedings as compared to regular insolvency proceedings, several procedural simplifications (e.g. number of legal meetings) have been instituted (Braun, 2006).

### **Stage 3: simplified insolvency procedure and discharge of residual debt** (Braun, 2006, Statistisches Bundesamt, 2013)

The legal procedure of discharge of residual debt starts with the petition of the debtor. The procedure is public (internet, bulletin), therefore, the debtors lose their anonymity. During the six years of the insolvency proceedings, the debtors have to contribute to the best of their ability to discharge their debts (so-called trustee time). They have to make their income available for the satisfaction of the creditors' claims, above a legally defined level after deductions based on requirements to pay child and spousal support. A legally appointed trustee supervises the benefits of the debtor and guarantees the possible satisfaction of claims via the income. There are causes of the refusal of the discharge (e.g., conviction for a criminal offence, false or incomplete written statements concerning his/her economic circumstances). Moreover, debtors have further obligations, such as that they must pursue a gainful activity and, if they are unemployed, they have to seek employment and should not refuse any reasonable employment (§295 InsO). The final decision of the court of discharge of residual debt occurs at the end of the legally mandated period of six years (Braun, 2006).

Figure 7 summarizes the legal process of private bankruptcy in Germany. The three different stages have specific outcomes (green boxes) which conclude in the relief of debts for consumers. The assistance and support of debt counsellors is a fundamental element of this process.

- Legal and administrative process of over-indebtedness in Germany -

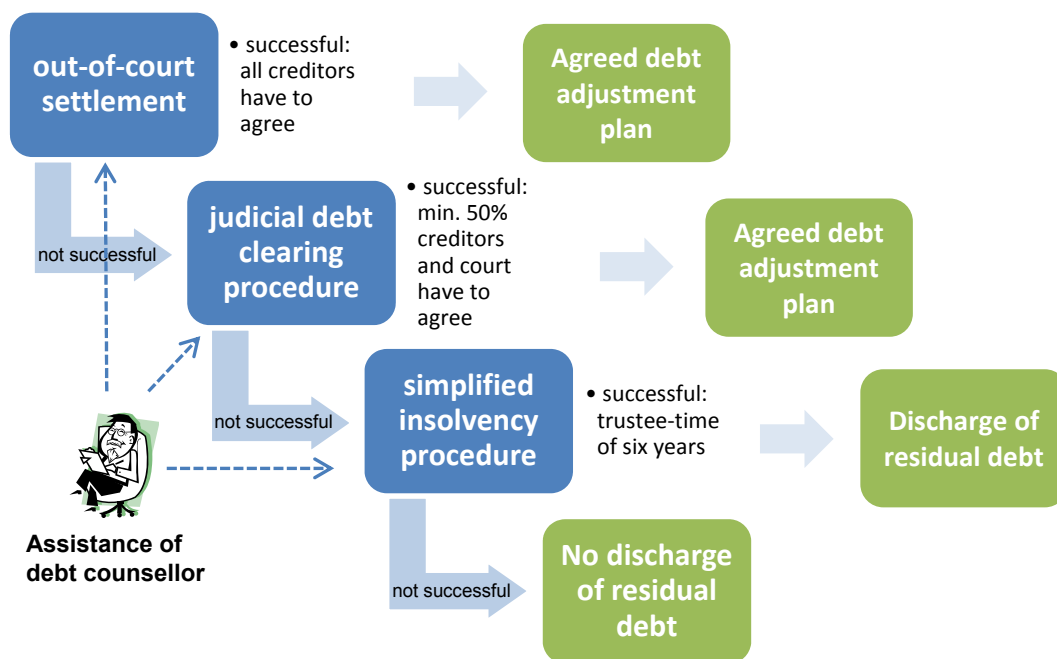


Figure 7: Legal and administrative process of over-indebtedness in Germany

Source: Illustration based on Statistisches Bundesamt, 2013, p. 4

The following chapter examines the current literature covering over-indebtedness in Germany. Moreover, it highlights different theories relevant to the aim of predicting and explaining payment behaviour.

## **CHAPTER 3: LITERATURE REVIEW**

After outlining the relevance, the aim and contextual information of this study, this chapter presents current knowledge on debt and payment behaviour respectively. This chapter begins with a review of the literature on debt and payment behaviour. It then focuses on the theory of planned behaviour, where both its historical development and current state will be emphasized. Moreover, the possible extensions and limitations of the theory will both be investigated and its applicability to this investigation will be justified.

### **3.1 Aim and stages of the literature review**

The aim of the review chapter is to undertake a systematic review of both quantitative and qualitative research on an individual's behaviour and on the payment behaviour of consumers as a group. The identification and validation of the theoretical framework that determines behaviour with respect to the special context of payment is an elementary part of this review. In order to achieve the most suitable and sustainable results for the subsequent transfer to "real life business," the review highlights particular impacts on the German mail-order market. The literature review aims to "to enable the researcher to map and to assess the existing intellectual territory, and to specify a research question to develop the existing knowledge further" (Tranfield, Denyer, & Smart, 2003, p. 208). As Tranfield et al. (2003) noted, the literature review process in management research, offers an appropriate possibility for managing the multiplicity of knowledge for a specific project. Mulrow (1994) argued that researchers, policy makers, and managers require systematic literature reviews to incorporate existing evidence and efficiently generate data for rational decision making. Additionally, Mulrow (1994) asserted that those literature reviews can justify whether outcomes are reliable and can be generalized across populations and settings, or whether results vary by specific subsets: "systematic literature reviews including meta-analyses are invaluable scientific activities" (p. 597). Although I agree with the limitations of a systematic review, as stressed by Bryman & Bell (2006) where the subject boundaries are more fluid and open or subject to change, I think that a systematic literature review provides a good way to find out whether or not previous studies have been undertaken in this specific field of research. Following the recommendations of



Tranfield et al. (2003), this review encompasses the key activities: Identification of key words and search terms, defining and applying inclusion and exclusion criteria, quality assessment, data extraction, and synthesis.

### **3.2 Search Strategy**

In the beginning of this literature review, a detailed search on “payment behaviour” was accomplished. As mentioned in chapter 1 there are several statistics presenting the results of payment behaviour in the retail market (e.g. Bundesverband des deutschen Versandhandel, 2008; Angele, 2008; Knobloch & Reifner, 2013; Creditreform Wirtschaftsforschung, 2013). In the case of “positive” payment there are statistics showing the increase of the turnover of the whole market, industry and the usage of different payment systems (e.g. EHI-Research, 2009; Deutsche Bundesbank, 2009; Bundesverband des deutschen Versandhandel, 2013). However, several statistics point to the negative aspects of payment behaviour that result in over-indebtedness and subsequent private bankruptcy (e.g. Knobloch & Reifner, 2013). Reports giving information about the influence of technical payment solutions have also been published on several websites (e.g. ibi research an der Universität Regensburg, 2008). These statistics provide basic knowledge about payment behaviour by confirming whether or not the customers pay, but fail to provide information about the underlying causes, beliefs, and behaviour causing the failure to pay. Against the specific background of a mail-order company, these statistics show only the obvious conclusion without an indication of possible avoidable factors. Further analysis in this field is required and will be accomplished with this thesis.

#### **3.2.1 Search resources and terms**

A variety of resources were used to locate relevant reports and literature for the review. To get an idea of the topic “(negative) payment behaviour” several databases provided by the University of Gloucestershire were reviewed. In particular, the following databases were used for the research: Business Source Complete, International Bibliography of the Social Sciences, PsycARTICLES, PsycINFO, and Psychology & Behavioural Sciences Collection hosted by EBSCO. They were chosen because of their wide range of articles, books, theses, and contributions on the relevant topics of this work: economics,

## - Search Strategy -

behaviour, psychology, and science. The diverse and extensive source of Google Scholar and Google Books also gave a very good indication of important literature fitting the search terms. The library and online databases at the University of Applied Science in Dornbirn, Austria, and the University of Würzburg, also offered much information.

Lechner (2009) showed a matrix of dimensions in empiric search with examples for “private bankruptcy” research. Table 4 provides this matrix as an overview of how to categorize and order the executed reviews. It provides a possible criteria for which inclusion / exclusion can be made with respect to the main point of the investigation (see next section).

<b>Socio-demographics</b>	<b>Finances</b>	<b>Debts and Bankruptcy</b>	<b>Attitudes and Behaviour</b>
Residual sociodemographics (e.g. age, sex, ethnicity, education)	Household finances, arrears of overheads	Contact to lawyer and judicial practice	<b>Attitudes to debts and bankruptcy</b>
Current work status, type of income	Type of Credit, Interests	Reasons for and Consequences of debts	<b>Coping with debts, influence in everyday life</b>
Real Estate, Mortgage	Usage and availability of bank account, credit card, financial exclusion	Type of Debts	<b>Reaction from other people, setback of own biography</b>
Goods, household interior	Financial knowledge	Amount of debts	<b>Behaviour in consuming or saving</b>
Status of social insurance, insurance in general	Financial Prospect, future expectations	Details of bankruptcy procedure	<b>Attitude to Deviance, criminal offence</b>

Table 4: Dimensions in empiric search with examples

Source: adapted from Lechner (2009) and different authors as cited there

Based on these dimensions, the search keywords were divided into three main categories. The term “(negative) Payment” was used in the meaning of (not) fulfilling the technical function of financial commitment, highlighting the possibilities and risks. “Behaviour”, “attitude”, and “norms” were used to investigate the psychological influence on payment and purchase decisions in general. In order to apply the influence of payment behaviour to the

## - Search Strategy -

environment of a mail-order company, the characteristics of this market and trade form were also considered. Moreover, the German translations of these terms were also part of the review undertaken (see appendix A-7).

Sample of primary search terms used (which were also used in a linked search strategy):

PAYMENT	BEHAVIOUR / ATTITUDE	MAIL-ORDER
Apply for payment	Classification of customers	Channels of distribution
Bank account	Consumer attitude	Competitors and compensational markets
Cash / cheque	Consumer behaviour	Country specifics
Credit card / debit card	Consumer characteristics	Home-shopping business
Credit management	Consumer choice	Legal and politics
Data mining and payment	Country specifics in behaviour	Technical security
Delayed payment	Customer loyalty	Trends in e-commerce
Facilitate payment	Customer relationship	E-commerce
Factoring / outsourcing	Customer satisfaction	E-Business
Methods / systems	Customer wishes	Catalogue business
Technologies / trends in payment	Ethnic group and behaviour	Retail business
Payment instruments	Expectations on Service quality	Wholesale
Postpone a payment	Loss of Reputation	Retail industry
Financial risk management	Needs of customers	Distance buying
Stop / suspend payment	Payment history	
Technical requirements to fulfil paying	Predicting attitudes	
Bad debt	Shopping behaviour	
Private bankruptcy	Debt behaviour	
	Theory of planned behaviour	
	Intention and Behaviour	

**Table 5: Classification of sample search-terms**

The terms were continuously developed throughout the process of this research. These search terms were used in the databases with and/or connections and placeholders (\*/?) e.g. “payment” and “behaviour” and (“shopping” or mail-order”). The basic reason for this procedure was that the

## - Search Strategy -

results should consider the elements of payment, behaviour, and mail-order and constitute the composite of those terms. Both qualitative and quantitative studies were taken into account.

The results for mentioned search terms were very different. The entry of a term sometimes led to several thousand hits (e.g. "consumer behaviour" with 8,955). In combination with "Payment" the result was reduced to 51 hits. In the specific context of "mail order", "home shopping", "shopping", or "commerce" the result was reduced to 0 or only of a few hits. The following list shows an excerpt of the search undertaken in the above mentioned databases.

1st Key Word	2nd Key Word (linked with 'and')	Hits	Search	Hits analysed complete
<b>Payment</b>	Behaviour	1,336	Abstract	No
<b>(payment behaviour)</b>	-	72	Abstract	Yes
<b>(Consumer attitude)</b>	-	3,297	Abstract	No
<b>(Consumer attitude)</b>	Payment	18	Abstract	Yes
<b>(consumer behaviour)</b>	-	8,955	Abstract	No
<b>(consumer behaviour)</b>	Payment	51	Abstract	Yes
<b>(Customer loyalty)</b>		5,082	Abstract	No
<b>(Customer loyalty)</b>	Payment	67	Abstract	Yes
<b>(Theory of planned behaviour)</b>		2,648	Abstract	No
<b>(Theory of planned behaviour)</b>	Payment	6	Abstract	Yes
<b>(Consumer choice)</b>		3,482	Abstract	No
<b>(Consumer choice)</b>	Payment	49	Abstract	Yes

Table 6: Excerpt of the search result for keywords linked to 'payment behaviour'

Source: Databases International Bibliography of the Social Sciences, PsycARTICLES, Psychology and Behavioral Sciences Collection, PsycINFO, Business Source Complete provided by EBSCO [25. Jan. 2010]

One result of this review was that no systematic review about payment behaviour in mail-order companies had been conducted in Germany or other countries within the scope of the available databases. Another outcome of this research was that quantitative and qualitative studies showed the concrete results of unpaid debts including an individual's potential for becoming over-indebted and losses suffered by those particular companies. However, they do not explain why people behave in such a manner (e.g., Angele, 2008; Bundesverband des deutschen Versandhandel, 2013). There are some empirical studies which answer linked questions in particular contexts and

## - Search Strategy -

circumstances. Online-shopping behaviour was analysed by e.g. Wang, Chen, Chang, and Yang (2007), and Pavlou and Fygenon (2006) where factors were outlined for the improvement of e-commerce adoption, but final payment was not addressed. Klee (2006) analysed the decision “Paper or Plastic? The Effect of Time on Check and Debit Card Use at Grocery Stores” and published a model of payment instrument choice. The author stated that an individual’s choice of payment method is influenced by three sets of factors: personal characteristics, characteristics of the payment instrument itself, and the characteristics of transactions. Klee represents a small sector of the research community focused on the models and possible explanations of the payment behaviour process. Therefore, behavioural theories that explain the origin are much more important and were focused on the following stages.

### 3.2.2 Inclusion and Exclusion Criteria

As explained, the individual (payment) behaviour is chosen as the primary containment criterion. Other criteria of intended inclusion and exclusion are summarized in Table 7:

Parameters	Inclusion Criteria	Exclusion Criteria
<b>Focus</b>	Behaviour and attitudes of consumers concerning payment and debt	Vice versa
<b>Location</b>	America and central Europe with focus on Germany. Countries with mail-order affinity.	Countries outside America and central Europe or having no mail-order.
<b>Time Frame</b>	Studies published 1960 onwards. Due to e-commerce newer publications favoured.	Studies published before 1960
<b>Population</b>	Studies which focus or include customers in the context of shopping (ideal case: within the retail market)	Vice versa
<b>Outcome</b>	Studies concerned with the behavioural process of payment and its result	Vice versa
<b>Study type</b>	Primary research, literature reviews, book reviews, policy documents, quantitative and/or qualitative studies	Studies with non-academic approach

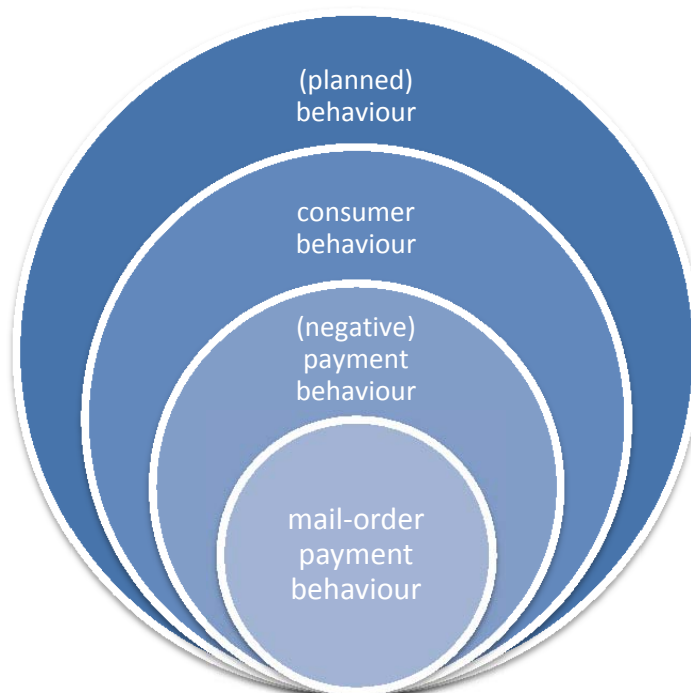
Table 7: Inclusion / Exclusion criteria

However, the application of these criteria does not yield any result that satisfies the main criterion – payment behaviour in terms of payment default for retailers.

For this reason, the above-defined criteria could only be used broadly (e.g. time, population) to get any clues for the theoretical approaches.

### 3.2.3 Intermediate result

Figure 8 demonstrates the literature review strategy based on keywords in the context of payment behaviour within the mail-order market.



**Figure 8: The literature review strategy**

In sum, all reviewed papers and academic research fall short in answering the initial question of “why are bills (non-)paid in the mail-order industry”. This agrees with the result of Schreft (2006), who wrote that the literature did a good job of answering the relatively easy question “What payment instruments do consumers use?” However, Schreft suggested that a much more challenging question to answer is, “How and why do consumers choose which payment instruments to use?” (Schreft, 2006, p. 5). The majority of research focused on a specific aspect in the environment of payment and was conducted without answering the underlying cause. For instance, the reviews in Table 8 concentrate on research with the focus on attitudes and behaviour in a financial context.

## - Search Strategy -

Financial Services Authority	The impact of life events on financial capability: Evidence from the BHPS (Taylor, 2009)
Financial Services Authority	Financial Capability in the UK: Establishing a Baseline (The Financial Services Authority, 2006)
University of Michigan Law & Economics	Did Bankruptcy Reform Fail? An Empirical Study of Consumer Debtors (Lawless, Littwin, Porter, Pottow, Thorne, & Warren, 2008)
Electronic Commerce Research and Applications	Understanding consumer acceptance of mobile payment services: An empirical analysis (Schierz, Schilke, & Wirtz, 2010)

Table 8: Selected reviews concerning payment behaviour

An important outcome of the review was the discovery of the specific theoretical framework mentioned in several articles: the TRA, which evolved into the TPB. This was therefore the favoured theoretical approach for this research, which is explained and reviewed in detail in section 3.4.4.

Table 9 shows a selection of different studies that successfully applied or reviewed the TPB, which fits thematically to the research questions.

Authors	Aim	Possible link to payment	Region	Sector
<b>Armitage &amp; Conner, 2001</b>	Meta-Analysis of the TPB from a database of 185 independent studies. "The present meta-analysis provides support for the efficacy of the TPB as a predictor of intentions and behaviour" (p. 489).	Applicability of the theory	UK	Cross-industry
<b>Armitage &amp; Christian, 2003</b>	This article traces the development of the TRA and TPB.	Meta-analysis of sufficiency of the theory	UK	Cross-industry
<b>Tonglet, 2001</b>	Investigation of shoplifting as consumer behaviour, highlighting that models of "normal" consumer behaviour can be applied to aberrant behaviour.	Applicability of the theory in a moral situation	UK	Retail
<b>Shaw &amp; Shiu, 2002</b>	Modified TPB. Highlights the usefulness of ethical obligation in the prediction of intention.	Add aspects of ethical obligation.	UK	Food

Authors	Aim	Possible link to payment	Region	Sector
d'Astous, Colbert, & Montpetit, 2005	The psychological determinants of music piracy behaviour were modelled in part with Ajzen's TPB.	Having swapped music online in the past had a strong influence on one's intention to do it again.	Canada	Online
Pavlou & Fygenson, 2006	Extension of the TPB to explain and predict the process of e-commerce adoption by consumers.	Applying the theory in the e-commerce environment	USA	E-commerce
Chih-Chung & Su-Chao, 2005	Test the sufficiency of the TPB in predicting consumer online shopping and extended TPB models by adding variables (e.g. past experience).	Possibility of prediction of online shopping behaviour	Taiwan	E-commerce
Wang, Chen, Chang, & Yang, 2007	Examination of online shopping intentions using the TPB	Efficiency of components of the TPB	Taiwan	E-commerce

Table 9: Relevant researches applying the theory of planned behaviour

In general, the literature review of quantitative and qualitative research was based on two goals. The first aim was to get deep insights in (negative) payment behaviour. Connected to this issue was the search for the causes of becoming over-indebted. This is discussed in the next section. The second aim was to establish an explanation of behaviour and its possible predictive characteristics. Relative to that goal, finding a theoretical framework that could both explain general behaviour and payment behaviour with its unique characteristics was fundamental. Both will be discussed and reviewed in section 3.3.

### 3.3 Literature and Statistics concerning over-indebtedness in Germany

Each society lives in a permanent process of change; Germany might be seen as being in the process of modernization (KorczaK, 2001). German society could be described as a 'risk society' (Beck U. , 1986), 'event society' (Schulze, 2005) or 'multi options society' (Gross, 2005). In contemporary society the generation of wealth and the generation of risk are closely linked (Beck U. ,



1986). As a result, the challenges and struggles that are related to the distribution “in a society of scarcity overlap with the problems and conflicts that arise from the production, definition, and distribution of techno-scientifically produced risks” (Beck U. , 1986, p. 19). Gross (2005) described the world as a big market, open for everyone and every possibility is outspread. Media and advertisement advance the dream of something new and promise that all possibilities can be realized: abstract possibilities become desirable possibilities and finally options. These concepts emphasize the fact that individualization, opportunities and risks, speed of information transfer and processing, knowledge, globalization of economic activities, and cultural patterns have increased (Korczak, 2001). These developments have impacted the level and nature of indebtedness in Germany. Over-indebtedness could be a temporary event in life or it can be manifested as a long-time circumstance that leads to the exclusion of over-indebted individuals and households from the rest of the German society (Korczak, 2001, 2003).

The majority of available data about over-indebted individuals was provided by credit agencies (Knobloch & Reifner, 2013; Rau, Hoffmann, & Bock, 2013), even the Federal Government of Germany used those data within their publications (see e.g., Federal Ministry of Labour and Social Affairs, 2013). These sources were regarded as suitable for this survey (German specific, mainly descriptive analysis regarding over-indebtedness as seen in e.g. Kustermann, 1998; Reiter, 1991; Korczak, 1997, 2001). Although these reports were criticized (e.g. Korczak, 2013; about the missing annotations Knobloch & Reifner, 2010), those statistics were regarded as having demonstrated valid tendencies under the assumption of constant methodology (Knobloch & Reifner, 2013). The Federal Government had also recognized the importance of data gathering about over-indebtedness and on 22 December 2011 released an act legislating data collection about socioeconomic factors and the main causes of over-indebtedness (“Überschuldungsstatistikgesetz – ÜschuldStatG”) which built the basis of further stable voluntary data-collection by debt counsellors.

Statistics (e.g. Creditreform, a German debt collection organization) measure the degree of indebtedness in two categories – high and low intensity. High

intensity demonstrates the existence of sustainable financial difficulties due to a high amount of different negative payment defaults, mostly documented by legal proceedings and several debt collections. Low intensity demonstrates the availability of less negative payment (debt) attributes, documented by several unanswered (minimum two) reminder letters from several donors and companies. In 2013, approximately 3.33m households were affected by financial difficulties and were considered over-indebted with a low intensity (see Table 10) (Creditreform Wirtschaftsforschung, 2013).

## Development of over-indebtedness 2004 - 2013

- debtors with low intensity -

Year	>18 year old, over-indebted	>18 years, % over-indebted people in the German population	over-indebted households
2004	6.54m	9.74%	3.10m
2005	7.02m	10.43%	3.33m
2006	7.19m	10.68%	3.47m
2007	7.34m	10.85%	3.54m
2008	6.87m	10.11%	3.36m
2009	6.19m	9.09%	3.04m
2010	6.49m	9.50%	3.20m
2011	6.41m	9.38%	3.22m
2012	6.59m	9.65%	3.33m
2013*	6.58m	9.81%	3.33m

Table 10: Development of indebtedness in Germany 2004-2013

Source: adapted from Creditreform Wirtschaftsforschung, 2013, p. 4; \*2013 estimated.

Table 11 provides an overview of the moderately increasing number of people living in Germany who were highly over-indebted (high intensity). It demonstrates that more than 3.7m people over 18 years are forced with sustainable over-indebtedness. That represents more than 5% of the population and over the past few years this number has continued to rise slightly. Against the background of the powerful German national economy, this figure is alarming for both Germany and Europe.

## Development of over-indebtedness 2006 - 2013

- debtors with high intensity -

Year	>18 year old, with high intensity of over-indebtedness	People with high intensity of over-indebtedness	households with high intensity of over-indebtedness
2006	3.40m	5.05%	1.62m*
2007	3.46m	5.11%	1.67m*
2008	3.44m	5.07%	1.66m*
2009	3.46m	5.08%	1.68m*
2010	3.61m	5.29%	1.75m*
2011	3.70m	5.42%	1.80m*
2012	3.78m	5.53%	1.84m*
2013	3.79m	5.65%	1.85m*

Table 11: Development of over-indebtedness in Germany 2006-2013

Source: adapted and projected by Creditreform Wirtschaftsforschung, 2013, p. 26; Over-indebted in this report is defined by the existent of sustainable negative attributes stored at Creditreform, a German debt collection organization. \*estimated

Compared to 2010, the average amounts of debt of the consumers who seek advice from a debt counsellor rose slightly in 2011. The average debt of advice-seekers was 27,260 € which means an increase of 1.3 per cent; at the same time the average number of outstanding bills has fallen from 13.8 in 2010 to 13.6 in 2011. In sum, more than 80 per cent of those people in the study have more than four outstanding bills (Knobloch & Reifner, 2012).

Having an overview about the number of households faced by over-indebtedness led to the main investigation about the main triggers. The following sections provide deeper insights in the process of becoming over-indebted and its primary causes.

### 3.3.1 Process of becoming over-indebted

Getting an overview about the typical process of becoming over-indebted helps to expand the understanding of the psychological background of debtors. Statistics acquired from public authorities regarding the main triggers of over-indebtedness highlight the main influences and broaden the understanding about the psychological and physical constitution of over-indebted people. Both the process and the main triggers are investigated in the following sections.

Knobloch et al. (2008) described the process of over-indebtedness as a dynamic process which has the following typical stages (see Table 12).

Stage 1	Each process of over-indebtedness begins with borrowing, but not all borrowing leads to over-indebtedness. Borrowing is a normal economic process in households because frequently there is a gap between the exchange of service and return. Bank loans can help investment for later stages in life in terms of education, occupation, household, family and housing, even though the current life-stage earnings are sufficient.
Stage 2	Economic destabilization occurs as a result of unforeseen circumstances. Income declines due to events such as unemployment or reduced work, divorce or separation from a partner or financial burdens due to illness, etc.
Stage 3	Compensatory mechanisms, for example the reduction of expenditures on clothing, food, and educational costs will be made.
Stage 4	Compensatory strategies are not sufficient to repay overdue debts within the time period (relative indebtedness). Despite the reduction in lifestyle expenditures, the creation of new income opportunities, and the consumption of property - the residual income is insufficient for timely debt repayment.
Stage 5	Delay of Payment, notice of credit and judicial measures lead to total indebtedness.
Stage 6	Threat to the living and use of debt counselling. Due to enforcement efforts of creditors, a significant burden is placed on affected households. These factors have implications for economic circumstances, but can also affect health, resilience, and the opportunity for individuals in a given household to participate in social life, particularly children.
Stage 7	Initiation of the consumer bankruptcy proceedings.

**Table 12: Typical stages of the bankruptcy process of consumers**

Source: adapted from Knobloch, Reifner, and Laatz, 2008

The beginning and subsequent stages of the process as described in Table 12 have varied causes. Sometimes the triggers are cumulative due to bilateral dependencies. Table 13 displays different causes of over-indebtedness within the process of becoming indebted from a survey by the Chemnitz University of Technology in 2009. The classification of the categories depends on the number of reasons mentioned.

Categories (respondents)	Type one (49.8%)	Type two (41.8%)	Type three (8.4%)
<b>Description / Stage in the progress of indebtedness</b>	Something happened under the circumstances of risk-society	Additional family/household-problems, coupled with financially-naive behaviour	Over-indebtedness as final result
<b>Reasons</b>	<ol style="list-style-type: none"> <li>1. Unemployment (29%)</li> <li>2. Divorce / Separation (27%)</li> <li>3. Failed self-employment (23%)</li> <li>4. Loss of financial control/overview (16%)</li> <li>5. Lack of experience with banks (9%)</li> <li>6. Family problems (8%)</li> <li>7. Bought too much (8%)</li> <li>8. Sustained low income (7%)</li> <li>9. Lack of experience with money (6%)</li> <li>10. Psychological problems (4%)</li> <li>11. Inability to follow a planned household budget (4%)</li> </ol>	<ol style="list-style-type: none"> <li>1. Unemployment (53%)</li> <li>2. Loss of financial control/overview (53%)</li> <li>3. Divorce/Separation (43%)</li> <li>4. Lack of experience with banks (29%)</li> <li>5. Family problems (28%)</li> <li>6. Bought too much (28%)</li> <li>7. Inability to follow a planned household budget (25%)</li> <li>8. Sustained low income (25%)</li> <li>9. Lack of experience with money (24%)</li> <li>10. Psychological problems (20%)</li> </ol>	<ol style="list-style-type: none"> <li>1. Loss of financial control (86%)</li> <li>2. Unemployment (70%)</li> <li>3. Bought too much (63%)</li> <li>4. Family problems (62%)</li> <li>5. Inability to follow a planned household budget (59%)</li> <li>6. Lack of experience with money (59%)</li> <li>7. Psychological problems (58%)</li> <li>8. Lack of experience with banks (56%)</li> <li>9. Sustained low income (52%)</li> </ol>

**Table 13: Three types of overindebted filing for bankruptcy**

Source: Survey Chemnitz University of Technology, adapted from Lechner, 2009

In general, two main phases in individual debt development could be distinguished before the third phase of over-indebtedness occurs (Dessart & Kuylen, 1986; see also Lechner, 2009).

A combination of the following factors generally exist at the outset of emerging financial problems (Dessart & Kuylen, 1986):

- Increased use of credit to expand household income based on the unpredictable nature of future circumstances.
- Availability of credit services providing a possible solution to camouflage current financial issues.
- Inability to assess future implications of financial obligations.
- Absence of a systematic approach to and management of financial resources.

- An overly optimistic or careless attitude towards the future financial situation and a positive attitude towards borrowing.

Second, several events occur to unsteady the financial equilibrium. These are particularly (Dessart & Kuylen, 1986):

- Living beyond one's financial possibilities for too long, not reacting at an earlier time.
- Unforeseen events: sickness, loss of employment.
- Reduction in income, e.g. childcare leave or a reduction in working, by choice or by force.
- Relocation (sometimes due to separation or divorce).

In the second phase, all flexibility regarding coping strategies disappeared due to lack of financial reserves (Dessart & Kuylen, 1986).

Angele (2008) stated that people who, with or without fault, got into financial problems, often lose their social status. Furthermore, they sometimes become socially excluded. The most common conclusion in the literature is that financial stress is linked with lowered self-esteem, a growing pessimistic view on life, and decreasing mental health, specifically an increase in depression and hostility (Davis & Mantler, 2004). Alcohol consumption and suicide can also be linked to financial stress, and may be the result of the growing level of depression (Davis & Mantler, 2004). For reasons of pride and embarrassment people do not talk about their financial situation and may isolate themselves (Dessart & Kuylen, 1986). Additionally, they may be unable to meet the financial requirements of an active social life (Dessart & Kuylen, 1986). Different negative factors of mental health are influenced by debt like stress, anxiety, depression and suicide (Drentea, 2000; Mirowsky & Ross, 2010; Meltzer, Bebbington, Brugha, Farrell, & Jenkins, 2013). "If this type of phenomenon occurs, the sufferer becomes less and less able to cope with the still deteriorating financial situation" (Dessart & Kuylen, 1986, p. 328). Furthermore, financial stress amongst parents (especially fathers) may lead to a lower responsiveness to children's' needs. This may also lead to a lack of discipline with their duties of raising their children (Davis & Mantler, 2004). Findings of a longitudinal study by Lechner (2009a)

indicated a significant improvement of mental health and life satisfaction from the time when the debt counselling and the legal bankruptcy process started.

The next sections provide a deeper understanding of the primary triggers of over-indebtedness.

### 3.3.2 Main trigger for becoming over-indebted

In addition to the process described by Dessart and Kuylen (1986), over-indebtedness has several triggers. Korczak (2001, p. XVII), writing on behalf of the German Federal Family Ministry, identified “ten major ways which lead into over-indebtedness:

1. separation/divorce
2. unemployment
3. starting your own household
4. low income
5. credit taking
6. addiction
7. low education and qualification level
8. bad financial management
9. bad health, disease
10. seduction by consumer goods, advertising and media industry”

To gain a deeper understanding about the general importance of the triggers, a 2006 survey was used to show the relevance of general causes. The questions were directed to individuals in a debt counselling process and the questions focused on their personal reasons for being over-indebted (see Figure 9) (Angele, 2008).

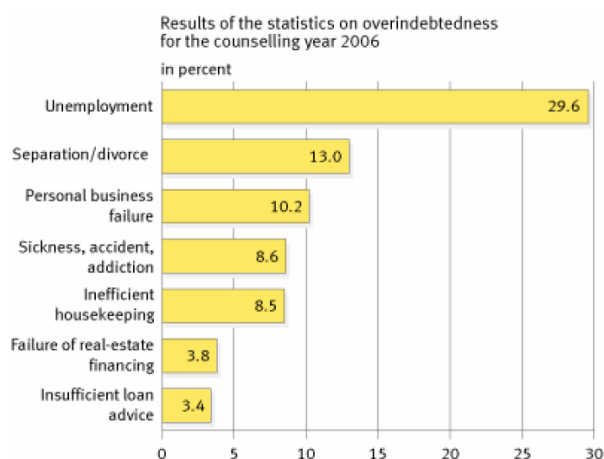


Figure 9: Survey: Main reasons for over-indebtedness in Germany 2006

Source: Angele, 2008

Additionally, a 2007 survey by debt counsellors categorized its findings in various groups and demonstrated the consistency of the main causes of over-indebtedness through different time periods (see Figure 10) (see also Creditreform Wirtschaftsforschung, 2013, emphasizing the consistency of primary causes). There are triggers that are highly unpredictable, such as unemployment, sickness, or an accident. On the other hand there are behavioural aspects for unpaid debts; they are individual and self-determined and potentially avoidable e.g., consumption behaviour or criminal behaviour.

Triggers of over indebtedness – as seen by debt advisors

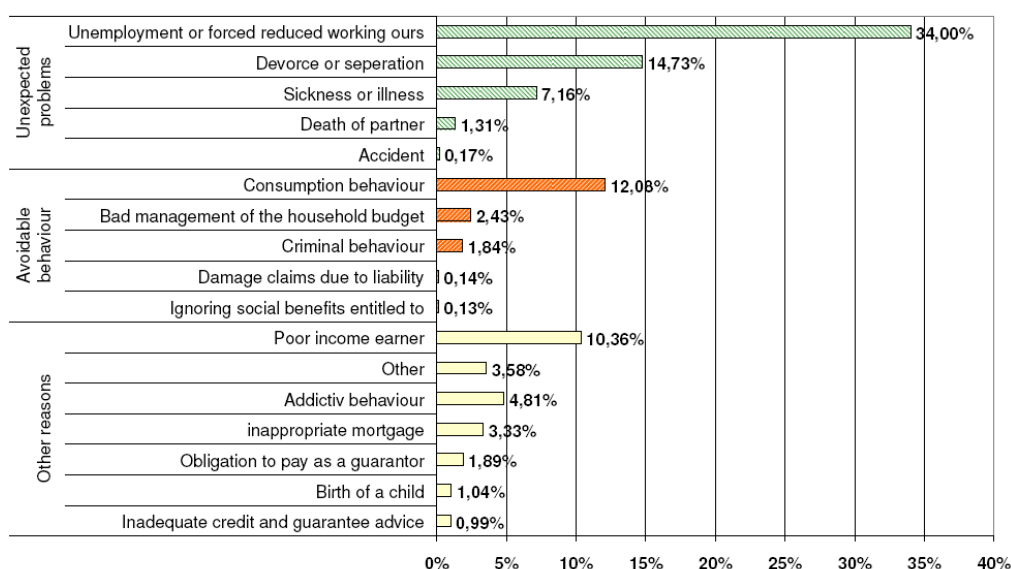


Figure 10: Triggers of over-indebtedness in 2007

Source: Knobloch (2009, p. 27)

In the years 2008-2013, the main triggers were very similar to those in 2006 and 2007 (Statistisches Bundesamt, 2013; Knobloch & Reifner, 2010, 2012, 2013; Creditreform Wirtschaftsforschung, 2013). Again, unemployment was the main trigger, followed by divorce, illness, consumption behaviour, and poor income due to self-employment. Those “Big Five” (Creditreform Wirtschaftsforschung, 2013) were considered as the main triggers of over-indebtedness as recorded by debt counsellors across Germany (e.g., Statistisches Bundesamt, 2013; Knobloch & Reifner, 2013).

Due to the different age of the consumers there are different causes for over-indebtedness. The following figure demonstrates the causes of over-



indebtedness between 2007 and 2011 in relation to the consumer's age. The white line is the median of the age; the blue boxes are the 2<sup>nd</sup> and 3<sup>rd</sup> quartile.

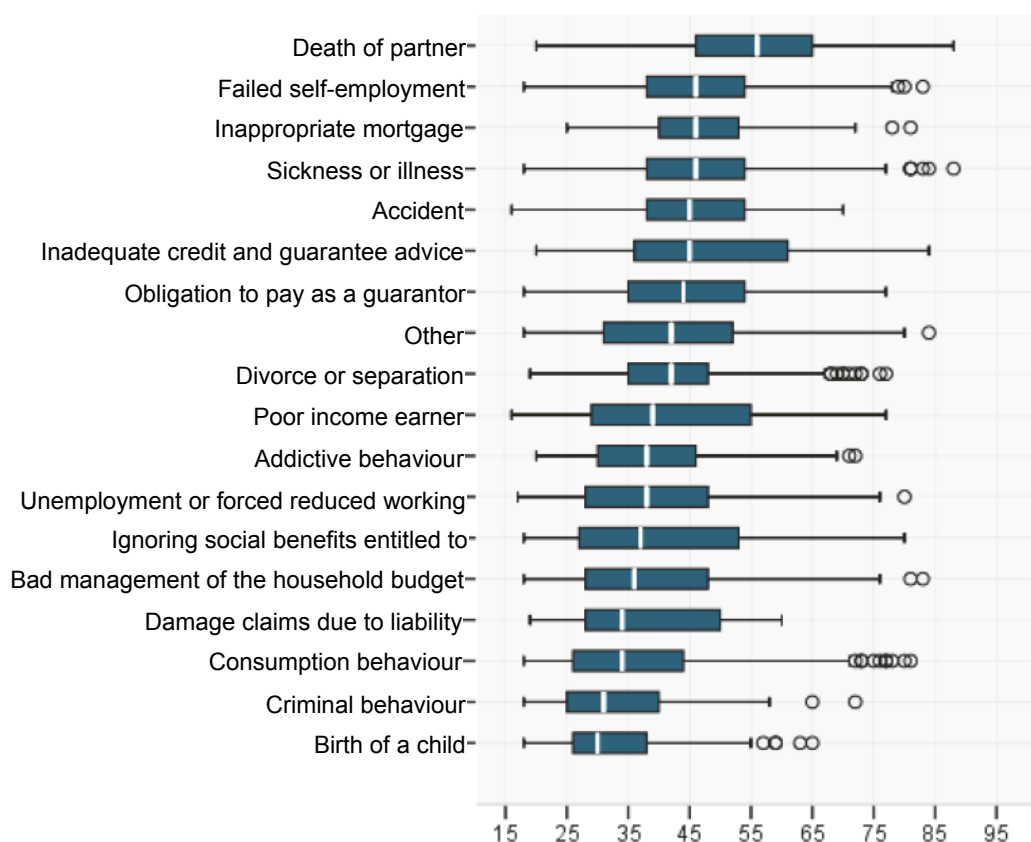


Figure 11: Triggers of over-indebtedness 2007-2011

Source: Knobloch & Reifner (2012, p. 18); legend translated in English

Figure 11 demonstrates in descending order the reasons for over-indebtedness that are more likely to be found in the elderly, through to the reasons that tend to be important for younger people. As expected, the death of a partner is often responsible for the financial crises of the elderly. Household formation, delinquency, consumer behaviour, and inefficient financial management are found to be the main causes of over-indebtedness among younger people (Knobloch & Reifner, 2012).

### 3.3.2.1 Unemployment rate as key driver of over-indebtedness

Unemployment is the main trigger of over-indebtedness and advances its development in two ways (Disney, Bridges, & Gathergood, 2008). First, fulfilling credit obligations based on former higher earnings is extremely difficult if a large reduction in income is associated with unemployment. The gap between previous income and legal unemployment entitlements impacts the ability to pay outstanding loans for the vast majority of households. Two incomes are often

necessary to meet arranged credit obligations. Under such conditions, the loss of a salary due to unemployment or income from short-term work might be sufficient to cause financial difficulties (Disney, Bridges, & Gathergood, 2008). Second, as unemployed consumers do not typically hold substantial savings, they are engaged in consumer credit to further maintain consumption. If those consumers are not able to find a new job or only find employment at a lower salary, then they may be unable to repay those interim credit commitments (Disney, Bridges, & Gathergood, 2008).

The unemployment rate in Germany and the figures of short-term work have been decreasing since 2009. The development of these key values for the German economy is shown in Figure 12. In January 2012, seasonally adjusted 2.9m unemployed were counted - in January 2011, there were still 3.1m. Short-term work, which was extraordinarily high during the worldwide financial crisis in 2009, dropped in 2012 back to the level before the crisis (Knobloch & Reifner, 2012). The positive development in the labour market in 2011 and falling unemployment extenuated the over-indebted to a degree (Knobloch & Reifner, 2012).

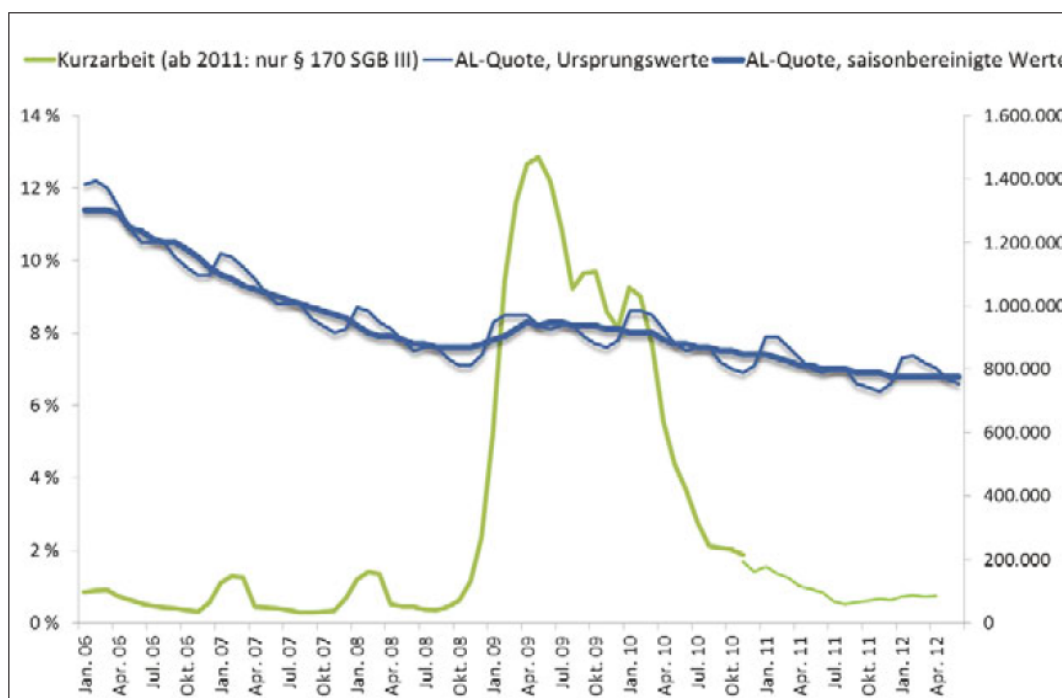


Figure 12: Unemployment rate and short-time work rate in Germany 2006-2012

Source: Knobloch & Reifner (2012, p. 20); blue line = unemployment rate (bold = seasonally adjusted), green line = short-term work

In conclusion, unemployment, which is usually accompanied by a significant loss of income, is empirically the most important factor of indebtedness. Becoming unemployed is a critical event in life and in many cases is difficult to predict. With prolonged unemployment, the risk of becoming over-indebtedness increases (Federal Ministry of Labour and Social Affairs, 2008). In addition, people with low levels of education tend to be affected more by over-indebtedness than those with higher levels of education: e.g. only 2.3% of debt-advice seekers in 2012 had a graduate degree, against 14% of the general German population (Knobloch & Reifner, 2012). This could be due to gaps in basic economic education, a weak situation in the labour market and / or ability to earn sufficient income (Federal Ministry of Labour and Social Affairs, 2013).

### ***3.3.2.2 Family breakdown or divorce and ill health***

Due to historically low levels of unemployment, divorce or family breakdown can be regarded as the most important trigger of over-indebtedness among “life events” (Disney, Bridges, & Gathergood, 2008). The most frequent financial result of family breakdown can be illustrated by a circumstance in which one partner is left with the responsibility of paying a loan that was initiated by both partners (Disney, Bridges, & Gathergood, 2008). Furthermore, because mortgages are usually taken out by the primary earner in a household, the obligation follows that individual. In contrast, a non-earning family member might enter into a consumer credit contract that is paid for by the primary earner (Disney, Bridges, & Gathergood, 2008). The non-earner is left with a commitment to outstanding credit as a result of the spilt of the relationship. In addition, outstanding consumer credit commitments are not usually or necessarily divided between partners as housing assets are (Disney, Bridges, & Gathergood, 2008). Based on statistics, men have a higher risk of over-indebtedness than women (Federal Ministry of Labour and Social Affairs, 2013) that could be due to an expression of a higher level of willingness to take a greater financial risk (Federal Ministry of Labour and Social Affairs, 2013). Moreover, Disney et al. (2008) found that the timing for seeking financial advice differs between behaviour among newly unemployed individuals and those facing divorce or the separation of a family. The latter usually seek financial advice soon after the event occurs. This is due to the fact that unemployed

individuals regularly make use of credit services to fund a job search and/or consumption during unemployment (Disney, Bridges, & Gathergood, 2008). Furthermore, during the breakdown of a family, individuals are more prepared to recognize that a financial situation is unsustainable and are willing to seek financial advice (Disney, Bridges, & Gathergood, 2008).

An unexpected change in the consumer's health status is another important factor that can cause a drastic reduction in income. Depending on the length of a given illness, an individual might be forced to leave the work force and/or suffer from a reduced income over a long period (Disney, Bridges, & Gathergood, 2008). However, "the causal relationship between ill health and over-indebtedness could potentially be two-way, for example over-indebtedness might lead to depression and vice versa" (Disney, Bridges, & Gathergood, 2008, p. 32).

### **3.3.3 Psychological and social factors concerning over-indebtedness**

A common finding is that social and psychological factors are also related to higher levels of debt (Lea, Webley, & Walker, 1995). That means that economic triggers are not the only factors that foster over-indebtedness. Psychological factors and decision making patterns include the ability to control one's personal life and act as an autonomous person, to make rational decisions based on economic circumstances, and to be aware of the vulnerability to advertising and unnecessary consumption (Dessart & Kuylen, 1986). Regarding the psychological and effects of increasing bankruptcy, "it is surprising, that almost no research has been conducted" (Davis & Mantler, 2004, p. 5). The following psychological factors might have an influence on consumer debt:

#### **Economic socialization:**

The findings of Lea, Webley, and Walker (1995) suggested that the initial experiences of individuals within their families of origin contribute significantly to influencing the way cultural norms are formed and maintained. Moreover, if debt is more accepted, it is expected that "debtors came from families where the shift from abhorrence to tolerance of debt was more advanced" (Lea, Webley, & Walker, 1995, p. 683). Tokunaga (1993) found that individual's skills of credit

usage positively correlated with the views of their parents on credit and use of it. Newcomb (1943) suggested that if consumers adopt an inappropriate reference group, then “debt-tolerant or debt-inducing norms might be generated” (Lea, Webley, & Walker, 1995, p. 683).

### **Social comparison:**

The social environment has an enormous influence on people (Lea, Webley, & Walker, 1995). The practice of comparing oneself to other people with more economic resources creates the risk of outspending available income because individuals may feel that they are entitled to, and want to have the same goods and services as the reference group enjoy (Lea, Webley, & Walker, 1995). Moreover, Lea et al. (1995) stated that “Keeping up with the Joneses, and other hypotheses about status-driven expenditure, are versions of the social-comparisons idea” (p. 683). Social comparison has a meaning comparable to the ‘subjective norms’ within the TPB; it is the social pressure of the peer group to perform or avoid a specific behaviour. Today, for consumers it is easy to “keep up with the Joneses” because several companies offer the possibility of getting the goods immediately and paying by small instalments, particularly retail or mail-order companies. Most people can keep up with peers, even if they lack the immediate financial means to do so. Ads offering 33 monthly instalments (e.g., the electronic company “Media-Markt” for Christmas 2013) solicit consumers and communicate to them that everything is possible.

### **Cognitive dissonance:**

A person will usually reduce a dissonance as it is psychological uncomfortable and unpleasant experience and try to achieve consonance (Festinger, 1957; Cameron & Golby, 1990). This is done by avoiding situations and information that could further increase dissonance (Festinger, 1957). Cognitive dissonance may cause an information filter. Information confirming the wishes and beliefs that are otherwise contradicted by the world are selected (Cameron & Golby, 1990). For example, risks regarding their current earning situation, potential increase in the interest rate, etc. would be filtered out in case of indebted individuals, so the notion of being financially sound and being able to maintain the current way of living is created (Cameron & Golby, 1990). Therefore, people

who have a positive perception of credit have a higher probability to be in debt (Livingstone & Lunt, 1992). This general finding is in accordance with the “dissonance theory, which would suggest that people who have a positive or accepting view of debt tend to take on more debt because in doing so they are not contradicting their beliefs” (Kennedy, 2013, p. 13). Moreover, consumers may succumb to debt because of a lack of self-control (Cameron & Golby, 1990). Handling this emotional pressure imposes cognitive dissonance (Gilad, Kaish, & Loeb, 1987; Akerlof & Dickens, 1982; Cameron & Golby, 1990). In the extended model of Gilad et al. (1987), dissonance increased from the current difference between expected and actual utility, named surprise. This surprise is disregarded as long it is below an individual threshold; therefore, this surprise had to be sufficiently extreme to elicit a change in behaviour, because people usually remain similar in their cognitions of the environment (Cameron & Golby, 1990). Therefore, cognitive dissonance intensifies the danger of becoming over-indebted and is an important factor in explaining debt behaviour. Its “surprising” effect could be a function of the individual threshold.

There are further important psychological factors that are of importance; they were significant in literature regarding the extensive use of credit cards. Paying by invoice or small instalments is similar to paying with a credit card, because the final cash-out will shift chronologically after the purchase. Those effects are of importance for the mail-order industry offering such payment methods.

### **Failure of cognitive system due to hyperbolic time discounting or impulsivity**

Although consumers can accurately anticipate the outcome of their activities, such as incurring charges due to exceeding credit (limits or capabilities), they might not behave in accordance with that knowledge because of impulsivity (Hsee & Hastie, 2006) and / or hyperbolic time discounting (O'Donoghue & Rabin, 1997; O'Donoghue & Rabin, 1999; Frederick, Shane, Loewenstein, & O'Donoghue, 2002; Wiener, Holtje, Winter, Cantone, Gross, & Block-Lieb, 2007). In accordance to the findings of Slovic (2001), individuals give more consideration to instant reward than to long-term consequences. Wiener et al. (2007) argued by analogy that the immediate material payoff using credit cards

carries more weight in consumers' decision than the higher costs in the long-term (e.g. due to a revolving credit).

### **Lack of emotional pain of spending by cash-alternative payment methods**

Wiener et al. (2007) suggested, as a result of cash payment alternatives, that the pain of spending money, which limits purchasing behaviour, will be reduced. Spending available money in cash might be associated with a negative emotion. The emotional pain of spending, e.g. handing over money "is a natural limit, which people come to predict as an outcome of their purchasing behavior" (Wiener et al., 2007, p. 33). However, credit cards can mitigate that emotional pain (Loewenstein & O'Donoghue, 2006). In other words, these negative effects are cancelled out by paying for products and services by credit card or equivalent payment instruments. These negative emotions are bypassed; therefore, their regulating effects are switched off (Wiener et al., 2007).

In sum, the advanced understanding of consumer behaviour offers creditors the possibility "to customize their products to exploit consumer error to its fullest" (Bar-Gill & Warren, 2008, p. 24). Consumers are defined as "boundedly rational" rather than fully rational decision makers, because they take into account only a limited number of product attributes and ignore others (Korobkin, 2003). Creditors benefit from buyers' bounded rationality because attention is diverted from cost aspects to distinct benefits (Lucas, 2001; Slowik, 2012). Creditors take advantage of several psychological effects, such as the general optimistic overconfidence bias of consumers, and encourage cardholders to increase debt by offering attractive incentives such as extended credit limits (Soman & Cheema, 2002). Moreover, by offering minimum monthly payments which increases total interest, creditors applied the hyperbolic discounting bias in their acquisition (Slowik, 2012; see also Bar-Gill, 2004).

The previous sections outlined the process and triggers of over-indebtedness. As already mentioned, this thesis focuses on honest payment behaviour. In order to draw a whole picture of payment behaviour and to consider potential links of dishonest behaviour with honest behaviour, the following section gives an overview about dishonest consumer behaviour.

### **3.3.4 Dishonest consumer behaviour and its impact**

Mail-order is a retail business. The difference is that the consumers do not visit and buy their goods in a bricks-and-mortar shop, but have them shipped. Consumer misconduct such as shoplifting in retail stores can be analogized to unpaid debts in the mail-order industry. In both cases, the customer does not pay the company and the trust of a retailer is breached. Moreover, retailers themselves are not the only ones affected by others misbehaviour; honest customers are also impacted by increased prices and increased security measures, which might have negative effects on the overall shopping experience (Fullerton & Punj, 1997; Tonglet, 2000, 2001).

For the mail-order-industry there is another analogy. Although shoplifting causes serious financial consequences for retailers and impacts consumers, negligible consideration has been given to shoplifting in both consumer behaviour and marketing literature (Tonglet, 2001). Furthermore, shoplifting can be instigated by unemployment, divorce or illness, which are the primary causes of over-indebtedness. Shoplifting could also be regarded as consumer behaviour, in particular as aberrant consumer behaviour with ethical consequences (Tonglet, 2001; see also Cox, Cox, & Moschis, 1990; Fullerton & Punj, 1993; Babin & Griffin, 1995). Cox et al. suggested that shoplifting "is a startlingly common method of consumer product acquisition" (1990, p. 149). However, the majority of shoplifters appears to be amateurs whose criminal activity is sporadic (Cox, Cox, & Moschis, 1990) and for their own consumption (Baumer & Rosenbaum, 1984) - a folk crime (Kraut, 1976). However, a few professional thieves exist (Klokis, 1985).

"Shoplifting is one of the most troubling and least understood aspects of consumer behavior" (Cox, Cox, & Moschis, 1990, p. 149). Shoplifting is regarded as a familiar method of acquiring goods, rather than a criminal subcultural phenomenon. It is a relevant topic also for consumer researchers (Cox, Cox, & Moschis, 1990). Shoplifting behaviour seems to be affected by moral norms, social norms, financial benefit, and the perceptions of a relatively low apprehension risk (Cox, Cox, & Moschis, 1990; Moore R. , 1984; Tonglet, 2001). Only a minority of shoplifters have psychiatric or psychological disorders



(Gudjonsson, 1990; Yates, 1986; Tonglet, 2001). Economic considerations, previous experience in shoplifting, and perceptions about the risk of being apprehended are important factors that are likely to influence shoplifting behaviour according to extant research (see e.g. Cox, Cox, & Moschis, 1990; Moore R., 1984; Ray, 1987) (Tonglet, 2001). Although the TPB provides support for the explanation of dishonest actions, “it appears that understanding the determinants of dishonest behaviors can be more problematic than understanding performance of socially acceptable behaviors” (Beck & Ajzen, 1991, p. 300).

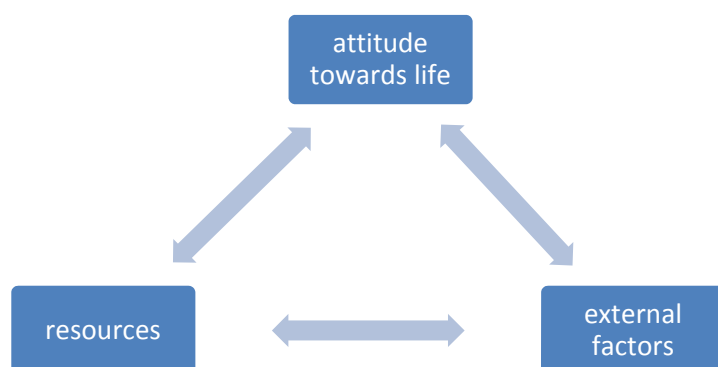
### **3.3.5 Summary of private bankruptcy in Germany**

There are many reasons for why people become over-indebted and several are interrelated. In 2001 Korczak identified three main reasons why Germany experienced over-indebtedness: failure of society, economic forces, and the disintegration of family as an institution (see also Piorkowsky, 2001). He argued that society, regardless of its democratic representations, rules and regulations, has not been able to prevent the upsurge of over-indebtedness. The different systems, e.g. public transfer payments, social security and the educational system, did not develop appropriate measures and skills to prevent the financial ruin of numerous people and families. Furthermore, he criticized the economic forces by stating that their main interest is to make a profit and while dealing with globalization and shareholder-value-orientation. In those attempts to become bigger, more successful, and more effective, companies might forget their social responsibility. Social responsibility means “an organization’s obligation to maximize its positive impact on stakeholders and to minimize its negative impact” (Ferrell, Fraedrich, & Ferrell, 2011, p. 38); however, “to minimize” does not mean “to prevent”. Additionally, Korczak viewed the family, as the institution that keeps society together, to be dissolving. As evidence, the author cited the increasing incidence of separation, divorce, single households, (alcohol) addiction, and violence. “Behind that you can see the individualisation of life style (which means in many cases egoism), the loss of privacy and solidarity, the uncertainty about the right morals and ethics and the focusing on material goods and consumption” (Korczak, 2001, p. XVI). Although Korczak’s

view of the family is very traditional, it parallels my personal view and definition of family.

As mentioned, over-indebtedness impacts all areas of life and within over-indebted households: it is often caused by the accumulation of various problems (Korczak, 1997). A technique to describe the various problems is the “conditions-of-life-approach.” Neurath introduced the term “Lebenslage” or “conditions of life” as a concept for assessing the life that an individual leads (Neurath, 1920). A basic feature of this concept is its multi-dimensionality; it includes different areas of life simultaneously and contrasts with mono-causal statements (Engels, 2008).

Korczak (2001) used the following model of the conditions-of-life-approach to describe the personal lifestyle of households in Germany.



**Figure 13: Factors determining the conditions of life of a household**

Source: adapted from Korczak (2001, p.42)

The personal lifestyles of households are documented by the actions of the individuals within, which are themselves determined by the resources of the household, by the attitude of the household members, their interpersonal relationships and also depend on factors external to the household (Korczak, 2001). Korczak (2001) described Figure 13 in his report thus ‘resources’ of private households are not only economic aspects such as income and wealth, but include social relationships, which can serve as support in difficult situations. The ‘attitude’ of the household members is shaped by their specific biography, their individual socialization, education, and experience. The conditions-of-life-approach describes how the members of a household use the

internal resources and how the members handle the 'external' conditions. Households often consist of more than one person; therefore, the relationship between the household members and the power relationships within the family system play an important role. Priorities must be set and compromises need to be found if the visions of the individual household members differ. Korczak (2001) defined external factors as both tangible (infrastructure, urban district, consultation services) and intangible societal conditions (legal, business processes, working conditions).

Over-indebtedness is affected by institutional factors, socioeconomic factors, psychological factors, and factors of decision behaviour (Knobloch, Reifner, & Laatz, 2008). Among the socioeconomic factors that influence the vulnerability to over-indebtedness are income and expenditure of a household and all the factors that affect it. A major influence on income and expenditure is the family life cycle. The various stages in the development of the family have been found to run synchronously with the progress of the ambiguous debt situation (Dessart & Kuylen, 1986). Typically, credits are increased in the first phase of the family life cycle prior to having children; both partners are employed and have consistent income. At that stage, credit limits are based on two incomes and future financial outlays are not taken into consideration (Dessart & Kuylen, 1986). The stage of family formation is linked with high cost at relatively low incomes. The stage in the personal life cycle at which families are founded is affected more often by over-indebtedness than at later stages. Households with two contributing adults are at less risk for over-indebtedness than households with only one adult. Again, unemployment and the division of a common household is the main reason for over-indebtedness (Knobloch, Reifner, & Laatz, 2008). Institutional factors affecting the indebtedness are those that affect the supply of credit. These include the regulatory environment of the credit market and the techniques used by lenders such as marketing and underwriting practices, which broaden the risk and deal with defaulting debtors (Knobloch, Reifner, & Laatz, 2008).

In general, there are a large number of influences and causes for over-indebtedness. As mentioned previously, many of them are unpredictable and lie

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beyond the individual's realm of influence, for example sudden sickness, being involved in an accident, or falling victim to crime. However, financial imprudence does not only result from consumers borrowing money for new purchases. Failing to adjust their consumption behaviour following reduced real income and lack of insurance against adverse events can also expose consumers to becoming over-indebted (Disney, Bridges, & Gathergood, 2008). A positive trend is reflected in the number of insolvency proceedings by individuals in the form of regulated bankruptcies. For the first time since 2008, a moderate decrease in private bankruptcy has been observed. In 2010, where 106,290 legal procedures were opened, there were only 101,075 openings in 2011. This represents a decrease of almost 5 per cent (Knobloch & Reifner, 2012). Figure 14 demonstrates the development of private bankruptcy procedures in Germany.

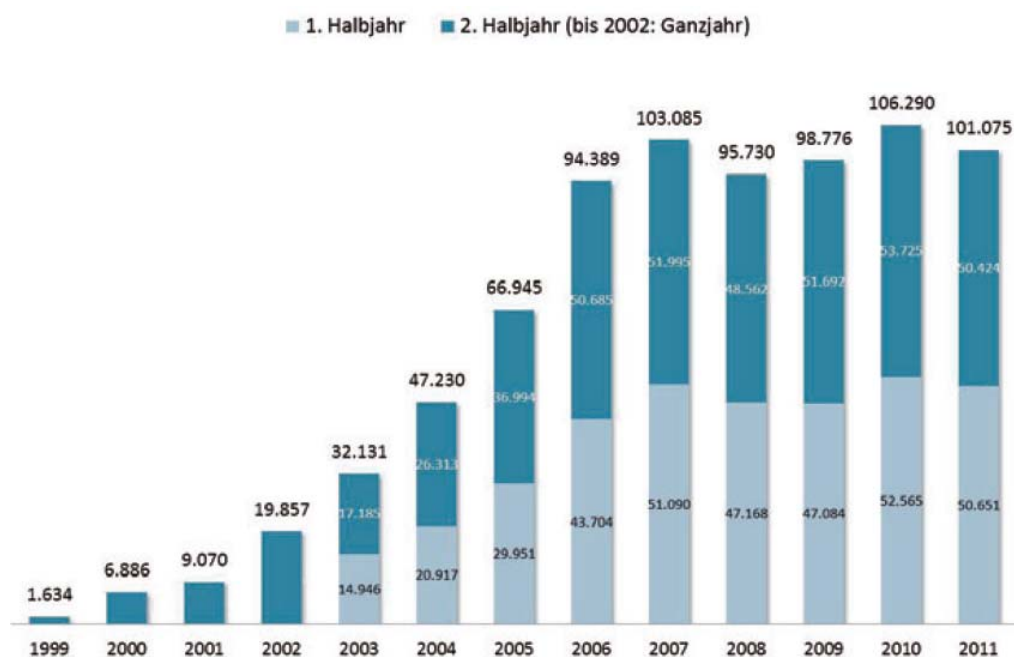


Figure 14: Private Bankruptcies 1999-2011

Source: Knobloch & Reifner (2012, p. 24); light blue = 1. Half-year | dark blue = 2. Half-year

In addition to this general process of becoming over-indebted, three general key conclusions have been determined (Disney, Bridges, & Gathergood, 2008):

1. The main triggers of facing a high intensity of debt and the resultant financial difficulties are unemployment/personal business failure, divorce/separation, and poor financial management.

2. In general, the adverse “shocks” to the household have a cumulative effect on the financial situation because a long-term bilateral relationship exists between adverse shocks and problems of over-indebtedness. “Psychological and family stress associated with periods of over-indebtedness will likely ‘feed back’ onto employment status, family composition, and self-confidence in the financial management capacity of the household” (Disney, Bridges, & Gathergood, 2008, pp. 4-5; see also Bridges & Disney, 2005; Brown, Taylor, & Wheatley Price, 2005 as cited there).
3. A wide range of families has experienced problems with managing finances in the long-term. This is caused primarily by a “lack of lifetime resources, which is in turn associated with low education, low employment prospects, lack of a stable breadwinner etc.” (Disney, Bridges, & Gathergood, 2008, p. 5). It is not surprising that a high rate of spending compared to earnings (specially seen in big families) and a lack of financial equity (primarily housing equity) may force some households into subprime forms of credit (Disney, Bridges, & Gathergood, 2008).

However, people can be held responsible for their own actions and therefore can influence a possible negative outcome of mal-behaviour. The added focus of this review is the investigation of behaviour in the context of payment.

### **3.4 Literature concerning (Payment) Behaviour**

“Payment choices are not the result of simple, static, binary decisions, despite our often modeling them that way. They are instead the result of complex higher-order, multi-dimensional decisions” (Schreft, 2006, p. 8). Those decisions are the result of several underlying beliefs with dependent causes. In order to provide a possible solution to these decisions, an explanation and design of a theoretical framework is required.

Schwartz S. (2003) says, behavioural economics differs from conventional economics in its assumptions about how individuals make decisions. In particular, where conventional economics assumes perfectly rational behaviour, unbounded self-interest, and infinite willpower; behavioural economics assumes

that human beings are not perfectly rational, not entirely self-interested, and have limited willpower. But behavioural economics and conventional economics share the notion that the value of a theory is measured by its usefulness in predicting changes in behaviour resulting from changes in important characteristics of the economic environment. The key difference between behavioural economics and conventional economics is that behavioural economics applies research from other disciplines – notably social psychology – to specify how economic agents will behave rather than using the theoretical assumptions normally used in economics (Schwartz S. , 2003).

### 3.4.1 Consumption theory

Keynes (1936) investigation of the psychological foundation of consumption behaviour in his “General Theory” is the beginning of modern consumption theory (Palley, 2005).

Keynes (1936) stated:

“The fundamental psychological law, upon which we are entitled to depend with great confidence both *a priori* from our knowledge of human nature and from the detailed facts of experience, is that men are disposed, as a rule and on the average, to increase their consumption, as their income increases, but not by as much as the increase in their income” (p. 96).

Over the individual stages of a life cycle, households accumulate and dissolve wealth. That means within periods of varying duration in the personal life cycle, households will be faced with negative assets (debts). Due to the uncertainty of the future, even a conservative household may experience over-indebtedness as a consequence of different unanticipated adverse shocks (Disney, Bridges, & Gathergood, 2008). The life cycle hypothesis (Modigliani & Brumberg, 1954; Friedman, 1957; see Sinha, 1988 for a critically survey) is a structural model covering the process of indebtedness.

“The Modigliani and Brumberg model starts from the utility function of the individual consumer: his (*sic.*) utility is assumed to be a function of his own aggregate consumption in current and future periods. The individual is then assumed to maximize his utility subject to the resources available to him, his resources being the sum of current and discounted future

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earnings over his lifetime and his current net worth” (Ando & Modigliani, 1963, p. 56).

The key principle of the life cycle hypothesis is that an anticipatory household utilizes a competitive capital market to level its expenditure as the household's income varies and changes in its composition fluctuate, due to factors such as aging family members or births (Disney, Bridges, & Gathergood, 2008). Typically, members of young households have relatively high needs, but low earnings, relative to their incomes later in their lifetime. Due to their prospect of relatively fast income growth in the future, it is very probable that a rational household will utilize borrowing and saving to accumulate and dissolve debts and assets over its individual lifetime (Disney, Bridges, & Gathergood, 2008). Therefore, debt can be seen as “negative savings with its volume being part of an optimal life cycle plan” (Cameron & Golby, 1990, p. 242).

A particular household would need to be measured at certain point of its life cycle to find a financial viable level as a benchmark for over-indebtedness. This benchmark would also need to include the likely evolution of the composition and its prospective income stream (Disney, Bridges, & Gathergood, 2008). Whether the household has a high intensity of debt or not is defined as being dependent on the ability or inability of the household to repay its obligations given its prospective stream of resources (Disney, Bridges, & Gathergood, 2008). Debt counsellors use this type of financial assessment when evaluating whether the members of a household have the financial capacity to pay off their obligations, or should be directed to initiate the process of personal bankruptcy (Disney, Bridges, & Gathergood, 2008). In sum, “Debt can also arise as the ex post result of ex ante utility maximization in a subjective expected utility model. In short, debt is either freely chosen or is the result of risk taking or forecast errors” (Cameron & Golby, 1990, p. 242).

Palley (2005) summarized important contributions of the life cycle approach to the understanding of life cycle consumption and related financial behaviour:

- Introduction of utility maximization.
- Forward looking via the inclusion of lifetime income assumptions.

- Utilization of financial components such as credit markets, borrowing and lending which are linked with the impact of interest rates and time preference on consumption.
- Incorporation of a sociological dimension because financial requirements through consumption may differ in the life cycle phases (see e.g. Fair and Dominguez, 1991 for the effects of changing age distribution in an economy).

The life cycle approach is an important factor that highlights and explains the usage of credit and savings related to specific stages in the lives of consumers. Another important factor concerning payment is behaviour itself. The next section covers important behavioural theories that assist in explaining the “why” in payment behaviour.

### **3.4.2 Behavioural theories**

Attitude and behaviour were under intensive examination between 1930 and 1950. Allport designated the attitude unit as “the primary building stone in the edifice of social psychology” (Allport, 1954, p. 45). Attitude is defined “as a response to an antecedent stimulus or attitude object. The stimulus may or may not be observable, and can best be thought of as an independent or exogenous variable” (Breckler, 1984, p. 1191). Furthermore “attitudes are always seen as precursors of behavior, as determinants of how a person will actually behave in his daily affairs” (Cohen A. , 1964, p. 138).

However, a literature review by Wicker (1969) “provides little evidence to support the postulated existence of stable, underlying attitudes within the individual which influence both his verbal expressions and his actions” (p. 75). This review described the ‘missing link’ between attitudinal predictors and behavioural criteria. A good example of the measurement of attitudes and observation of the opposite behaviour is the study of LaPiere (1934). LaPiere travelled in company of a Chinese couple through different parts of the United States. At that time, there was an intense prejudice towards the Chinese. LaPiere made detailed records of the way in which they were treated in 250 hotels, restaurants, and cafes. During their journey, LaPiere and the young couple visited 184 restaurants, cafes and 66 different accommodations and



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were refused at only one establishment. Afterwards, LaPiere questioned individuals at the visited establishments. The majority (92% of the replies) stated that they would not “accept members of the Chinese race as guests” (LaPiere, 1934, p. 234). Based on the responses it would be difficult for Chinese to travel in the US; however, the actual behaviour demonstrated that the American people were not at all averse (LaPiere, 1934). Thus, LaPiere’s (1934) study highlighted the difference between attitudes and actual behaviour.

The lack of findings identified by Wicker (1969) led many investigators to reconsider the nature of the attitude-behaviour relation (e.g. Campbell, 1963). An alternative view was in the expectancy-value models, which assume that “subjects are able to execute the response that is required, and they focus upon the implication relations that are involved in action-outcome expectancies (i.e. on the perceived likelihood that actions will lead to outcomes)” (Feather, 1990, p. 162). Simultaneously, an increased disenchantment with the attitude concept arose and the literature reflected general agreement that measures of attitude have little significance for the forecast of overt behaviour (Ajzen & Fishbein, 1977). Ajzen (1991) suggested that a “remedy for the poor predictive validity of attitudes and traits is the *aggregation* of specific behaviors across occasions, situations, and forms of action” (p. 180; see also Epstein, 1983; Fishbein & Ajzen, 1974 as cited in Ajzen, 1991). However, the principle of aggregation does not permit prediction of a specific behaviour in a specific situation nor does it not explain behavioural variability across situations because behaviour in different situations on different occasions might cancel out each other (Ajzen, 1991). Fishbein and Ajzen (1975) were critical of the practice of using broad attitudes to predict specific actions in specific situations. Different studies (e.g. Davidson & Jaccard, 1979) show that when the specification in measures of attitude and behaviour correspond with target, action, context, and time (Ajzen, 2002), its correlation is higher (see also Armitage & Christian, 2003). The important principle of correspondence or compatibility of the TPB supports that “attitudes correlate strongly with behavior when they are assessed at the same level of generality or specificity as the behavioral criterion” (Ajzen, 1996, p. 385). “The failure of such general attitudes to predict specific behaviors directed at the target of the attitude has produced calls for abandoning the attitude concept” (Ajzen, 1991, p. 180; see also Wicker, 1969 cited there). According to

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the meta-analysis of Wicker (1969), consistent evidence to answer the question of whether behaviour is derived from attitude or not was non-existent. Fishbein and Ajzen worked on the distinction between beliefs and attitudes (Fishbein, 1963) and the behavioural intention model (Ajzen & Fishbein, 1969) and via their empirical research developed two important theories, the TRA and TPB (see Figure 15 for an overview of its origin).

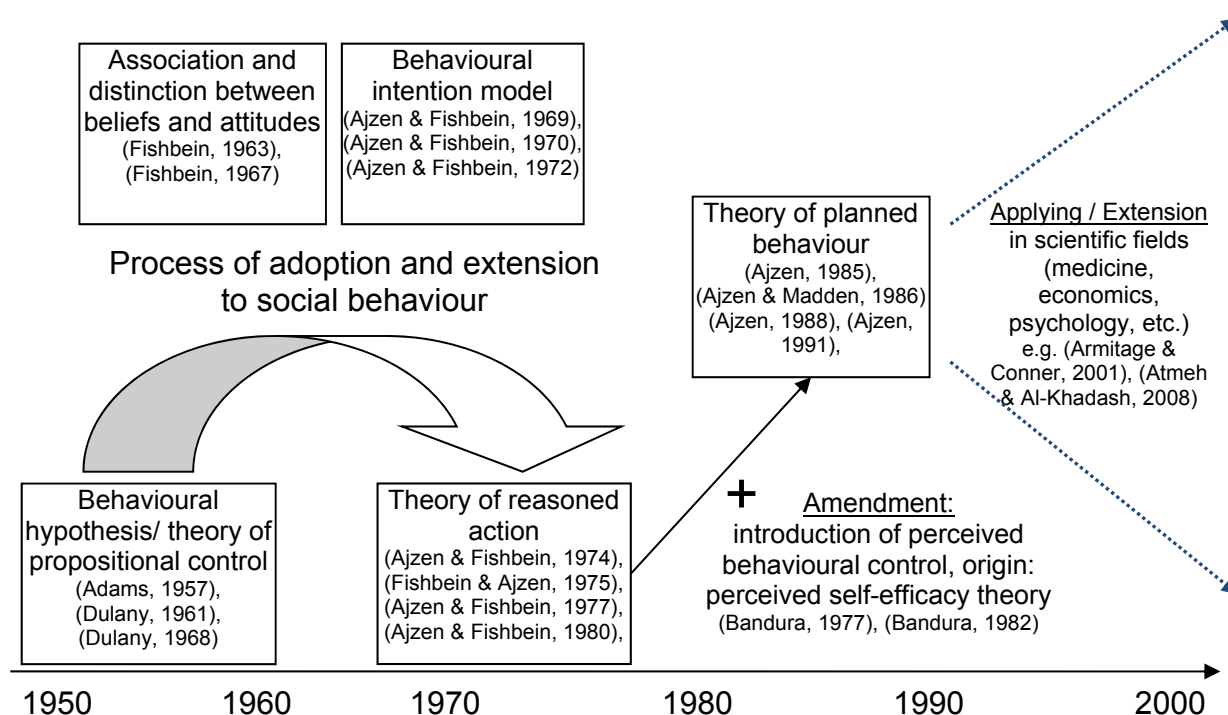


Figure 15: Origin of the theory of planned behaviour (chronological order)

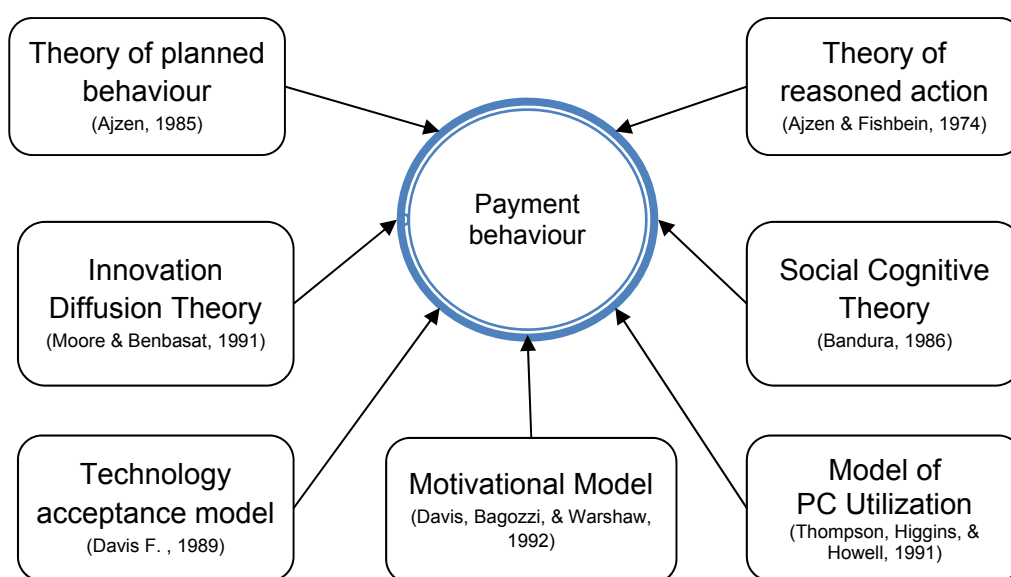
Source: compiled by the author

Figure 15 demonstrates the influences and development of the TRA and its extension TPB. This theoretical framework was applied in several fields e.g. medicine, environment, economics, and psychology (e.g., Albarracín, Johnson, Fishbein, & Muellerleile, 2001; Atmeh & Al-Khadash, 2008; Eagly & Chaiken, 1993; Norman & Conner, 1993; Ajzen & Timko, 1986; Armitage & Conner, 2001; Bamberg & Lüdemann, 1996). Additionally, it built a framework for gaining insight into financial behaviour (e.g., Xiao & Wu, 2008; Chudry, Foxall, & Pallister, 2011; Haghghi, Rahrov, & Vaezi, 2012). The theory was also applied in the context of negative behaviour, such as predicting dishonest (Beck & Ajzen, 1991) or cheating behaviour (Atmeh & Al-Khadash, 2008) which is an important practical analogy of this thesis. The meta-analysis of Ajzen (1991)

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himself confirmed that “the theory is found to be well supported by empirical evidence” (p. 1).

The TPB by Ajzen and Fishbein provided an initial foundation to explain (payment) behaviour. However, the process of payment could be influenced by several factors, (e.g. technical aspects in case of e-payment or e-commerce), and additional theories or models such as the technology acceptance model by Davis (1989). Figure 16 shows possible theories and models relative to the payment behaviour process. In order to focus on payment behaviour in general and reduce the complexity of this study, only the TPB was investigated and examined. Support for this decision is based on the work of Chudry, Foxall, and Pallister (2011) which emphasized the superiority of TPB in the debt environment.



**Figure 16: Theory based influences on payment behaviour**

**Source: Illustration based on Venkatesh, Morris, Davis, and Davis (2003)**

The TPB has been applied in different studies and is open to several extensions (Ajzen, 1991). Therefore, I think it is well suited for additional investigation into payment behaviour. In order to provide an understanding of the theoretical construct and the elements, both the TRA and the TPB are explained in detail in the following sections.

### 3.4.3 Theory of reasoned action (TRA)

The TRA was developed by Fishbein at the end of the 1960s and revised by Ajzen and Fishbein during the early 1970s. Fishbein's first version of the TRA, called "theory of behavioral prediction", (Fishbein, 1967, p. 491) was the basis for the further development. The TRA was "born largely out of frustration with traditional attitude-behavior research, much of which found weak correlations between attitude measures and performance of volitional behaviors" (Hale, Housholder, & Greene, 2002, p. 259). Ajzen and Fishbein joined forces to understand how to predict human behaviour. After reviewing different studies, they developed a specific theoretical framework that could both explain and predict volitional behaviour. Their theory regarded behavioural intentions as the main predictors of behaviours (Ajzen & Fishbein, 1980). They assumed that "individuals are usually rational and make systematic use of information available to them. People consider the implications of their actions before they decide to engage or not engage in a given behavior" (Ajzen & Fishbein, 1980, p. 5). The crucial point of this theory is to predict volitional behaviour based on the ability to predict the intention to perform that behaviour (Ajzen & Fishbein, 1980). This means that people are behaving in the way they intend to do so. The probability that an action will actually be performed depends on the strength of a person's intention as stated by Ajzen and Madden (1986):

"The constructs employed by the theory of reasoned action are fundamentally motivational in nature. According to the theory, the immediate antecedent of any behavior is the *intention* to perform the behavior in question. The stronger a person's intention, the more the person is expected to try, and hence the greater the likelihood that the behavior will actually be performed" (p. 454).

The aim of the TRA is to predict a voluntary act (Hale, Housholder, & Greene, 2002), "unless intent changes prior to performance or unless the intention measure does not correspond to the behavioral criterion in terms of action, target, time-frame and/or specificity" (Sheppard, Hartwick, & Warshaw, 1988, p. 325). Furthermore, the TRA addresses only behaviours that are under an individual's volitional control (Sheppard, Hartwick, & Warshaw, 1988). Consequently, behaviours that are not under individuals' voluntary control were outside the boundary conditions of the theory (Sheppard, Hartwick, & Warshaw,

1988). Therefore, the explanatory scope of the TRA “excludes a wide range of behaviors such as those that are spontaneous, impulsive, habitual, the result of cravings, or simply scripted or mindless” (Hale, Housholder, & Greene, 2002, p. 259; see Bentler & Speckart, 1979; Langer, 1989 as cited in Hale et al., 2002).

#### ***3.4.3.1 Core elements of the theory of reasoned action***

The TRA posits that the dominant predictor of voluntary behaviour is one’s behavioural intention (Hale, Housholder, & Greene, 2002). Behavioural intentions are the result of an individual influence, a person’s attitude towards performing the volitional behaviour, and a normative influence, one’s subjective norm (Hale, Housholder, & Greene, 2002). Therefore, two conceptually independent determinants of intention exist within the TRA. First, attitude towards the behaviour, a personal factor, which “refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior in question” (Ajzen & Madden, 1986, p. 454). Second, subjective norm, “a social factor; it refers to the perceived social pressure to perform or not to perform the behavior. Attitude and subjective norm, each weighted for its relative importance, are assumed jointly to determine behavioral intention” (Ajzen & Madden, 1986, p. 454). The TRA also deals with the antecedents of both attitudes and subjective norms: behavioural beliefs and normative beliefs because the theory postulates at its fundamental level that behaviour is a function of salient beliefs, relevant to the behaviour (Ajzen & Madden, 1986; Ajzen, 1991).

The central equations of the theory can be presented as follows, where the specific behavioural intention influences the subsequent overt behaviour and is therefore regarded as the most accurate predictor (symbolized with  $\sim$ ) (Fishbein & Ajzen, 1975; see also Ryan, 1982):

$$B \sim I = (A_B)w_1 + (SN)w_2$$

$B$  = behaviour;  $I$  = intention;  $A_B$  = attitude towards performing behaviour  $B$ ;  $SN$  = subjective norm;  $w_1w_2$  = empirically determined weights; (Fishbein & Ajzen, 1975, p. 301)

Behavioural intentions are a function of two weighted variables, attitude and subjective norms.

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Attitude towards performing the behaviour:

$$(A_B) = \sum_{i=1}^n b_i e_i$$

$b_i$  = belief that performing behaviour  $B$  leads to outcome  $i$ ;  $e_i$  = person's evaluation of outcome  $i$ ;  $n$  = the number of beliefs the person holds about performing behaviour  $B$  (Fishbein & Ajzen, 1975, p. 301)

Subjective norms:

$$SN = \sum_{i=1}^n b_i m_i$$

$b_i$  = normative belief that reference group or individual  $i$  thinks he should or should not perform behaviour  $B$ ;  $m_i$  = motivation to comply with referent  $i$ ;  $n$  = relevant referents (Fishbein & Ajzen, 1975, p. 302).

The following graphic (Figure 17) shows the components of this formula as a closed loop:

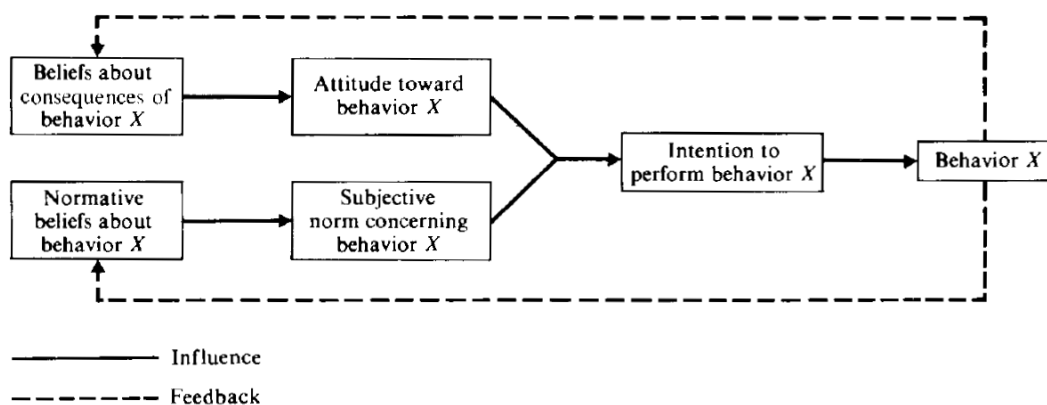


Figure 17: Conceptual framework of the theory of reasoned action

Source: Fishbein & Ajzen (1975, p.16)

In sum, “Intentions summarize a person’s motivation to act in a particular manner and indicate how hard the person is willing to try and how much time and effort he or she is willing to devote in order to perform a behaviour” (Rivis & Sheeran, 2003, p. 218).

### 3.4.3.2 Review of the theory of reasoned action

The TRA relies on intention as the only predictor of behaviour. This means the success of the TRA can be questioned because of its boundary conditions, which remain unresolved; the transition from verbal response to actual behaviour is largely responsible for this (Ajzen & Madden, 1986). Therefore, the

TRA is insufficient when no volitional control over the behavioural goal exists. Various factors affect control over intended behaviour; some are external (e.g. time and opportunity), and others are internal to the individual (e.g. skills, abilities, and knowledge) (Ajzen & Madden, 1986). An assessment should be made with regard to the level that individuals are limited in their control and there is a requirement to reach an assumption of the degree of volitional control over the behaviour (Ajzen & Madden, 1986). Behaviour may be assumed to be totally under an individual's volitional control if the individual can choose at will to execute or not to execute it (Ajzen & Madden, 1986). "Conversely, the more that performance of the behavior is contingent on the presence of appropriate opportunities or on possession of adequate resources (time, money, skills, cooperation of other people, etc.), the less the behavior is under volitional control" (Ajzen & Madden, 1986, p. 455).

Fishbein and Ajzen's (1975) TRA has received considerable and justifiable attention in consumer behaviour research (Ryan & Bonfield, 1980). Moreover, the model predicted consumer volitional intentions and behaviour quite well (Sheppard, Hartwick, & Warshaw, 1988) and provided "a relatively simple basis for identifying where and how to target consumers' behavioral change attempts" (Sheppard, Hartwick, & Warshaw, 1988, p. 325). Liska (1984) asserted, that "the Fishbein/Ajzen model ignores the causal relationship between attitudes and social norms and conceptualizes their joint effects on behavior as entirely independent" (p. 69). However, "it would seem that the Fishbein and Ajzen model has strong predictive utility, even when utilized to investigate situations and activities that do not fall within the boundary conditions originally specified for the model" (Sheppard, Hartwick, & Warshaw, 1988, p. 338).

Ajzen (1985) responded with an extension of the TRA, the TPB, and argued that "The theory of reasoned action was developed explicitly to deal with purely volitional behaviors" (Ajzen, 1988, p. 127), "in other words, relatively simple behaviours, where successful performance of the behaviour required only the formation of an intention" (Armitage & Christian, 2003, p. 191). Finally it must be clarified that Fishbein's model "is a model for the prediction of behavioral

intentions and not a model for the prediction of behavior *per se*" (Ajzen & Fishbein, 1969, p. 415).

The limitations of the TRA made an extension necessary: the TPB (Ajzen, 1991) which will be discussed in the next section.

#### **3.4.4 Theory of planned behaviour (TPB)**

Psychologists became more and more concerned with the role of control over behaviour because the significance of actual control for future behaviour was obvious (Ajzen & Madden, 1986). In part, the behavioural outcome has to be regulated by the resources and opportunities available to people (Ajzen & Madden, 1986). However, the fundamental element in the TPB is the individual's intention to perform a given behaviour (Ajzen, 1991). Ajzen (1991) stated that:

"Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in behavior, the more likely should be its performance" (p. 181).

In contrast to the TPB, the TRA holds that human behaviour is merely determined by personal factors, which means that control over behaviour is of minor importance (Armitage & Christian, 2003). An improved alternative is the TPB, "a conceptual framework that addresses the problem of incomplete volitional control" Ajzen (1988, p. 132; see also Ajzen, 1991). Within the TPB, the construct of perceived behavioural control was added in order to deal with conditions in which individuals have incomplete volitional control over the behaviour (Ajzen, 2002a). Perceived behavioural control is "one's perception of how easy or difficult it is to perform the behavior" (Eagly & Chaiken, 1993, p. 185) and "it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Beck & Ajzen, 1991, p. 286). PBC is close to Bandura's self-efficacy construct (Hale, Housholder, & Greene, 2002). Bandura (1982) explained self-efficacy as "judgements of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122). The extension of PBC was important, as success will also be



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dependent on non-motivational factors such as availability of opportunities and resources (e.g., skills, money, and time) (Beck & Ajzen, 1991). In sum, an attempt to perform the specific behaviour is necessary to determine whether the individual has the necessary resources and opportunities (Ajzen & Madden, 1986). However, PBC or “the person’s belief as to how easy or difficult performance of the behavior is likely to be” (Ajzen & Madden, 1986, p. 457), can be measured. The absence and/or presence of necessary resources and opportunities determines intention and action via its underlying beliefs. Finally, the “more resources and opportunities individuals think they possess, and the fewer obstacles or impediments they anticipate, the greater should be their perceived control over the behavior” (Ajzen & Madden, 1986, p. 457).

In the TRA and TPB, beliefs are important determinants of an individual’s intentions and actions (Ajzen, 1991). With the goal of explaining individuals’ behaviour and not solely predicting it, the TPB deals also with the antecedents of its main constructs (Ajzen, 1991). Ajzen (1991) asserted that:

“Three kinds of salient beliefs are distinguished: *behavioral beliefs* which are assumed to influence attitudes toward the behavior, *normative beliefs* which constitute the underlying determinants of subjective norms, and *control beliefs* which provide the basis for perceptions of behavioral control” (p. 189).

Figure 18 presents the extension of PBC to the reasoned action-model. Furthermore the influences of beliefs are also emphasized.

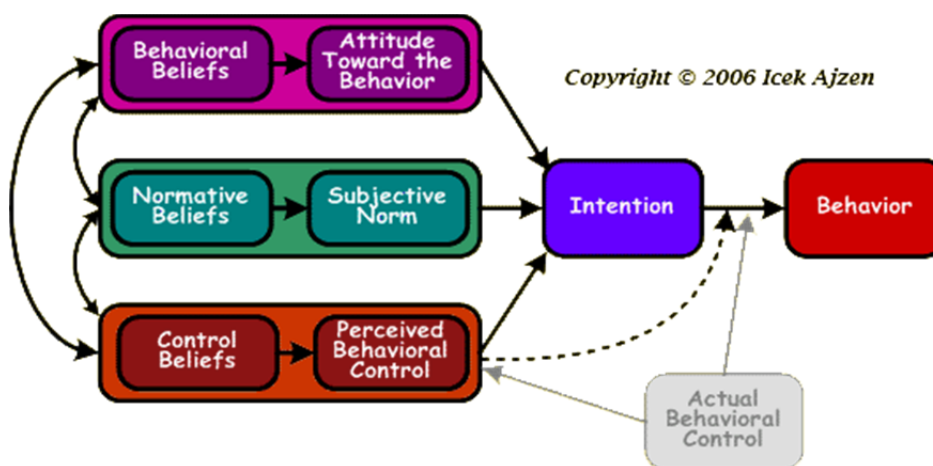


Figure 18: Diagram of the theory of planned behaviour

Source: Ajzen, (2009)

In the following sections, these beliefs with their influence towards intention and behaviour are explained.

#### **3.4.4.1 Behavioural Beliefs and Attitudes toward Behaviours**

Fishbein and Ajzen's (1975) expectancy-value model of attitudes exemplified an information-processing approach to attitude formation. According to the theoretical framework, attitudes accrue from the beliefs individuals hold about the object of the attitude - the consequences of performing the behaviour multiplied by evaluations of those consequences (Ajzen, 1991; Ravis & Sheeran, 2003). In general, people form beliefs about an object by linking it with particular characteristics such as other objects, attributes, or events (Ajzen, 1991). Ajzen (1991) argued that

“Since the attributes that come to be linked to the behavior are already valued positively or negatively, we automatically and simultaneously acquire an attitude toward the behavior. In this fashion, we learn to favor behaviors we believe have largely desirable consequences and we form unfavorable attitudes toward behaviors we associate with mostly undesirable consequences” (p. 191).

That means, “the strength of each salient belief ( $b$ ) is combined in a multiplicative fashion with the subjective evaluation ( $e$ ) of the belief's attribute, and the resulting products are summed over the  $n$  salient beliefs. A person's attitude ( $A$ ) is directly proportional ( $\propto$ ) to this summative belief index” (Ajzen, 1991, p. 191).

$$A \propto \sum_{i=1}^n b_i e_i$$

#### **3.4.4.2 Normative Beliefs and Subjective Norms**

A subjective norm is determined by an individual's beliefs about the extent to which individuals significant to that person want them to perform a behaviour (normative beliefs) multiplied by the individual's motivation to comply with the significant people's views (Ravis & Sheeran, 2003). Ajzen (1991) asserted that:

“Normative beliefs are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behavior. The strength of each normative belief ( $n$ ) is multiplied by the person's motivation to comply ( $m$ ) with the referent in question, and

the subjective norm ( $SN$ ) is directly proportional to the sum of the resulting products across the  $n$  salient referents” (p. 195)

$$SN \propto \sum_{i=1}^n n_i m_i$$

People significant to the individual in the target group are usually asked whether they would approve or disapprove of the performed behaviour under observation (Ajzen, 1991). Where an individual was a member of a significant group, subjective norms played a surpassing role (see e.g. Christian & Abrams, 2003; Terry & Hogg, 1996; Abrams, Ando, & Hinkle, 1998; Abrams, Hinkle, & Tomlins, 1999; Terry, Hogg, & McKimmie, 2000).

#### **3.4.4.3 Control Beliefs and Perceived Behavioural Control**

In the same way as attitudes and subjective norms, PBC is also determined by certain beliefs. “Underlying perceived behavioural control are beliefs concerning factors that inhibit or facilitate performance of the behaviour multiplied by the perceived power of these factors” (Rivis & Sheeran, 2003, p. 219). Past experience with the behaviour may be partially grounded in those control beliefs, but usually they will also be influenced by experiences of relevant social groups such as friends, spouse / partner, acquaintances, and other determinants that reduce or increase the perceived difficulty of performing the behaviour under observation (Ajzen, 1991). As Ajzen (1991) explained:

“Each control belief ( $c$ ) is multiplied by the perceived power ( $p$ ) of the particular control factor to facilitate or inhibit performance of the behavior, and the resulting products are summed across the  $n$  salient control beliefs to produce the perception of behavioral control ( $PBC$ ). Thus, just as beliefs concerning consequences of a behavior are viewed as determining attitudes toward the behavior, and normative beliefs are viewed as determining subjective norms, so beliefs about resources and opportunities are

$$PBC \propto \sum_{i=1}^n p_i c_i$$

viewed as underlying perceived behavioral control“ (pp. 196-197).

“The more resources and opportunities individuals believe they possess, and the fewer obstacles or impediments they anticipate, the greater should be their perceived control over the behavior” (p. 196).

#### **3.4.4.4 Intermediate result**

In sum, it is important to highlight the findings of Beck and Ajzen (1991) who expected that both the relative significance of the theoretical components attitude, subjective norm respectively perceived behavioural control in the prediction of intention and the relative importance of intention and perceived behavioural control in the prediction of behaviour vary across behaviours and populations. Beck and Ajzen (1991) summarized this as follows:

“Thus, in some applications it may be found that only attitudes have a significant impact on intentions, in others that attitudes and perceived behavioral control are sufficient to account for intentions, and in still others that all three predictors make independent contributions” (p. 288).

In the situation of indebtedness, the extension of the TRA with perceived behavioural control reduces the tendency to over-predict social conformity by allowing the inclusion of factors that may inhibit an individual's ability to act in consonance with their attitudes (Chudry, Foxall, & Pallister, 2011). This concept is particularly important in terms of indebtedness where there is a natural tendency for a person to overestimate their potential to overcome personal liabilities and to simultaneously underestimate financial obligations in a social context (Chudry, Foxall, & Pallister, 2011). The TPB has been proven to be highly effective for researching this type of behaviour (Chudry, Foxall, & Pallister, 2011).

However, Ajzen and Fishbein stated that the theoretical framework of the TPB is “in principle, open to the inclusion of additional predictor variables” (1980, p. 247). Research indicates that adding variables to the model may improve the predictive ability (see e.g., Ajzen, 1991; Manstead & Parker, 1995; Armitage & Conner, 2001; Heath & Gifford, 2002; Rivas & Sheeran, 2003; Conner, Lawton, Parker, Chorlton, Manstead, & Stradling, 2007; Bamberg & Möser, 2007; Darvell, Walsh, & White, 2011; Chan & Bishop, 2013). In fact, the current theoretical TPB model expanded the original TRA by adding PBC to benefit the prediction of behaviour in which individuals have a lack of volitional control (Ajzen, 1991; Beck & Ajzen, 1991).

The following sections review two important extensions: moral norms and past behaviour, because of their suggested utility, demonstrated by the work of Beck and Ajzen (1991) and the meta-analytic review of Armitage and Conner (2001).

#### ***3.4.4.5 Moral norms and the theory of planned behaviour***

Psychologists and sociologists had longstanding interest in the topics of honesty and dishonesty (Beck & Ajzen, 1991; Devries & Ajzen, 1971; see also Hartshorne & May, 1928; Corey, 1937 as cited in Beck & Ajzen, 1991). Moral situations are special, as they are immune from deliberate change (Hart, 1961), which means that moral rules cannot be set like legal rules. That does not mean that they are immune from change but it is difficult and infrequent. With regard to over-indebtedness and negative payment behaviour, a close look at moral norms could be very important for this research.

The original version of Fishbein's (1967) theory had a distinction between personal normative and social normative beliefs (Budd & Spencer, 1985). "If individuals are affected by the perceived standards of important others they are also likely to be controlled by their own standards." (East, 1993, p. 342). Therefore, in order to provide a clear differentiation, "Personal normative beliefs [...] were seen as measuring the person's own expectations about their behaviour and social normative beliefs [...] were seen as measuring other people's expectations about their behaviour" (Budd & Spencer, 1985, p. 300). Schwartz and Tessler (1972) stated that "personal normative beliefs and attitude toward the act appear to be necessary predictors of intentions" (p. 235). However, personal normative beliefs were later excluded from the theoretical framework and social normative beliefs were redefined as subjective norms (Budd & Spencer, 1985). The findings of Schwartz & Tessler (1972) imply that it is an error to omit individual's normative beliefs from the model. "When operationalized as personal sense of moral obligation, personal normative beliefs may indeed be the most important single predictor of intentions and interpersonal behavior, and not simply an alternative measure of behavioral intentions" (Schwartz & Tessler, 1972, p. 235). Ajzen and Fishbein (1973) argued that

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“empirical findings have repeatedly indicated that a subject's report of his personal normative belief serves mainly as an alternative measure of his behavioral intention. Inclusion of personal normative beliefs in the theory, therefore, tended to confound, rather than clarify, the problem of understanding the determinants of behavioral intention” (p. 43).

Moral norms are a person's perception of the moral obligation or responsibility of performing or refusing a particular behaviour (Ajzen, 1991; Sparks, 1994; Conner & Armitage, 1998). It seems probable that moral concerns are salient in the case of dishonest behaviours (Beck & Ajzen, 1991) and that “a measure of perceived moral obligation could add predictive power to the model” (Beck & Ajzen, 1991, p. 289). Thus, Ajzen (1991) emphasized that the addition of moral norms may prove useful to the theoretical framework. In particular, consideration should be given to “*personal* feelings of moral obligation or responsibility to perform, or refuse to perform, a certain behavior” (Ajzen, 1991, p. 199; see also Gorsuch & Ortberg, 1983; Pomazal & Jaccard, 1976; Schwartz & Tessler, 1972 as also cited in Ajzen, 1991).

Several findings highlight the importance of the inclusion of personal norms, which were regarded as a variation of moral norms, moral obligation, ethical obligation or personal normative beliefs as shown by Table 14 (Wittenberg, 2009).

Study	Variation of personal norm	Application
Budd & Spencer, 1985	Ideal behaviour intention	Public alcohol consumption
Beck & Ajzen, 1991	Perceived moral obligation	Cheating
Raats, Shepherd, & Sparks, 1995	Moral obligation	Health food consumption
Kurland, 1995	Moral obligation	Agents' ethical intentions
Bamberg, 1999	Personal norm	Students' car usage
O'Connor & Armitage, 2003	Moral norms	Parasuicide
Godin, Conner, & Sheeran, 2005	Moral norms	Smoking, Prevention

Table 14: Extensions of subjective norm by variations of personal norm

Source: adopted from Wittenberg (2009, p. 57)

Beck and Ajzen (1991) considered not only perceived social pressures in their research of the TPB, but also personal feelings of moral obligation to perform or

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reject to perform a particular behaviour. They noted that “moral concerns are likely to be salient with respect to the behaviors under investigation and a measure of these concerns could improve prediction” (Beck & Ajzen, 1991, p. 290). Gorsuch and Ortberg (1983) postulated “that a measure of personal moral obligation is a necessary part of the Fishbein-Ajzen model to predict behavioral intentions effectively in moral situations. The data suggest that some distinction between moral and nonmoral situations can be useful” (p. 1028). It is worthwhile to distinguish between people’s personal preferences and their sense of ethical responsibility in moral situations. Some people in certain moral situations intend to do what they think is morally responsible, even though it might be personally unpleasant (Gorsuch & Ortberg, 1983). Beside the prediction of behaviour provided by the application of the TRA or TPB, the explanatory nature of the theoretical frameworks is of greater interest for most researchers (Manstead, 2000). For certain behaviours, specific differences in moral norms might be based on cognitive development and differing backgrounds in terms of socialization. Specifically, when social and individual rewards are in contrast to moral norms, the separate measure of moral norms within the TRA or TPB will improve both the predictive value and provides “an explanation for and an understanding of variations in intention and behavior” (Manstead, 2000, p. 30).

In sum, the positive impact of moral norms was outlined in several reviews (e.g. Conner & Armitage, 1998; Armitage & Conner, 2001). For instance, in the research covering dishonest actions by Beck and Ajzen (1991) moral norms significantly increased the explained variance in intention. In a 1995 study, Kurland found that a modified model based on moral obligation contributes the most to explaining an insurance agent’s intention to tell customers the truth. Another significant contribution of moral norms to the prediction of intention was outlined by Randall and Gibson (1991): the measure of moral norms improved the prediction of ethical decision making, while the perceived behavioural control construct contributed nothing. This suggests that at least for several behaviours under observation, moral norms may possess more predictive power than PBC (Conner & Armitage, 1998). Parker, Manstead, and Stradling (1995) used an extended version of the TPB including, amongst others, moral norms to examine intentions to commit driving violations. The regular TPB

predictors accounted for between 34% and 37% of the variance in intentions, the addition of moral norms increased this by 10% (Parker, Manstead, & Stradling, 1995; Manstead, 2000). Manstead (2000) stated that literature clearly established that the predictive value of both the TRA and TPB increased with the inclusion of moral norms: "Moral norms, it would appear, have a psychological status that is (at least partly) independent of attitudes to behavior, subjective norms, and intentions" (p. 22).

Regarding the circumstances of the population of this study (over-indebted people, at least those in currently serious financial difficulties) and the special conditions of payment by invoice (trust of mail-order companies in the willingness to pay), moral norms could be an important factor for the explanation of the behaviour. This is in line with Conner and Armitage (1998) who stated: "Moral norms should have an important influence on the performance of those behaviors with a moral or ethical dimension, and work in parallel with attitudes, subjective norms, and PBC (thus directly influencing intentions)" (Conner & Armitage, 1998, p. 1441).

#### ***3.4.4.6 Past behaviour within the TPB***

Past behaviour and its influence on current behaviour is an important concern that has attracted significant attention both in practice and research (Conner & Armitage, 1998; for a review, see Eagly & Chaiken, 1993). Moreover, it is argued that several behaviours are determined by past behaviour rather than by findings investigated through the components in the TRA and TPB (Sutton, 1994; as cited in Conner & Armitage, 1998). In contrast, Ajzen (1991) regarded the role of past behaviour solely as a test of the sufficiency of the TPB. He argued that "perceived behavioral control can play an important role in mediating the effect of past on later behavior" (Ajzen, 1991, p 204) because "Repetition of behavior should lead to enhanced perceptions of control" (Conner & Armitage, 1998, p. 1437).

Based on this argumentation, past behaviour should be highly correlated with PBC (Conner & Armitage, 1998). The outcome of the analysis by Conner and Armitage (1998) did not support this view: past behaviour and intention ( $r =$



0.51; based on 16 studies) had higher correlation than past behaviour and PBC ( $r = 0.38$ , 10 studies). Based on their findings, Conner and Armitage (1998) suggested that past behaviour should be included in future studies to examine the mediating influence by the TPB variables on respectively behaviour and intention. "However, on the basis of published research, there appears to be an empirical case to support past behavior as a predictor of unique variance in intentions and behavior in the TPB" (Conner & Armitage, 1998, p. 1438).

#### ***3.4.4.7 Summary of the theory of planned behaviour***

Both the TRA and its extension, the TPB, contributed greatly to behavioural science. For example, attitudes and subjective norms, building the TRA, account for 33 to 50% of the explained variance in intentions (Ajzen, 1991; Sheeran & Taylor, 1999; Armitage & Conner, 2001). The addition of the perceived behavioural control component to the TRA typically increases the variance explained in intentions and behaviour (see Ajzen, 1991; Godin & Kok, 1996; Conner & Armitage, 1998; Sheeran & Taylor, 1999; Armitage & Conner, 2001). Although the results are notable, it is also obvious that the TPB leaves a considerable amount of the variance both in intentions and in behaviour unexplained (Rivis & Sheeran, 2003). Conceptual factors should also be considered, although some of the unexplained variance can be associated with methodological factors (cf. Sutton, 1998) (Rivis & Sheeran, 2003). Although Chudry, Foxall, and Pallister (2011) examined debts of students and not of mail-order consumers, they provide support for the TPB as a predictive model and appropriate framework of exploring debt behaviour. Meta-analytic reviews support the theory's predictive and explanatory utility (e.g., Armitage & Conner, 2001; Ajzen, 1991; Godin & Kok, 1996; Conner & Armitage, 1998; Sheeran & Taylor, 1999); therefore, this theory has great relevance to this research.

Due to its clear theoretical design, the TPB is highly effective at reducing the complexity of human behaviour. Furthermore, external factors such as age, gender, and place of residence are reduced to minimal relevance and simplified again. Although the dotted line in Figure 19 indicates that these background factors "may in fact influence behavioral, normative, or control beliefs, there is no necessary connection between background factors and beliefs" (Ajzen,

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1988, p. 134). Background factors and external variables “can affect behavior only indirectly. That is, external variables will be related to behavior only if they are related to one or more of the variables specified by our theory” (Ajzen & Fishbein, 1980, p. 82). Ajzen (1988) further emphasized that, whether “a given belief is or is not affected by a particular background factor is an empirical question” (p. 134) and therefore provides the option of grouping the outcomes based on these external variables.

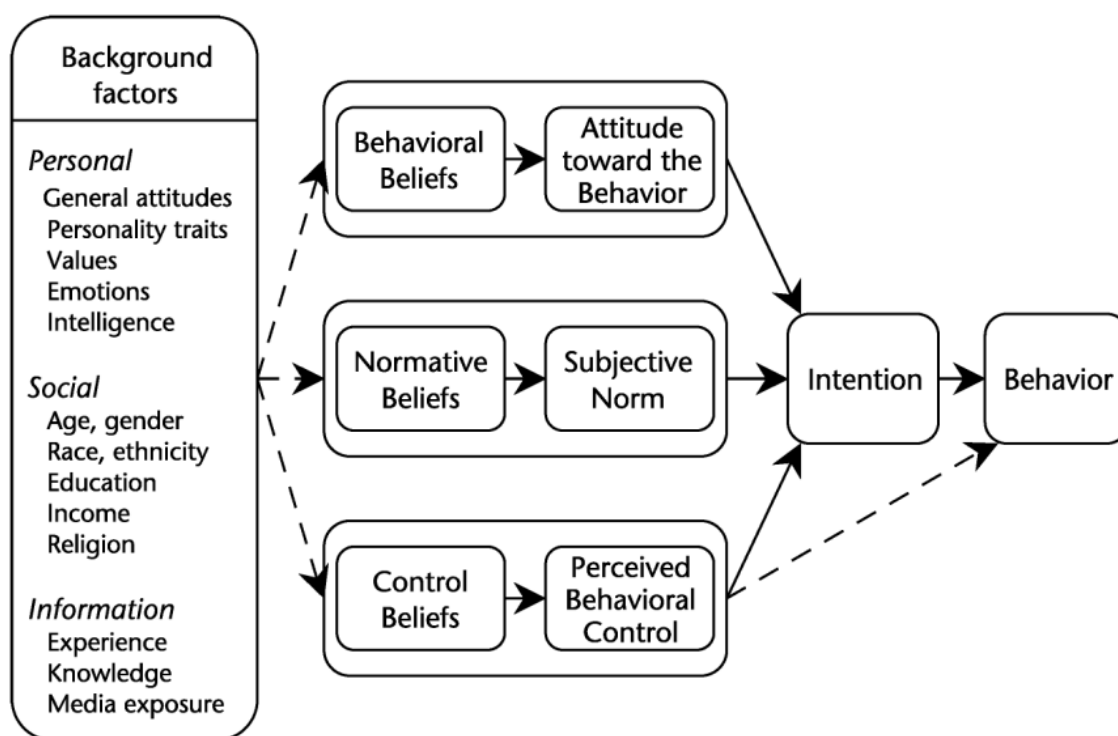


Figure 19: The role of background factors in the theory of planned behaviour

Source: Ajzen (1988, p. 135)

Given its multiple applications and success in practice, this theory, as explained by Armitage and Conner (2001), Albarracín, Johnson, Fishbein, and Muellerleile (2001) and Armitage and Christian (2003), has merit for this study. Over-indebted consumers are within a specific situation and their behaviour might be determined through internal and external influences. The theory addresses, through its components, important aspects for investigating and explaining the behaviour of over-indebted consumers. Attitudes expresses over-indebted consumers' evaluation of payment behaviour, social norms the specific social pressure to perform the behaviour, and perceived behaviour control measures the individual's belief as to how difficult or easy the performance of the given behaviour is likely to be (Ajzen & Madden, 1986). The TPB specified the

behaviour under observation in terms of its target, action, context, and time elements (Ajzen, 2002) and therefore provides a specific answer to the research questions. The application of the theory offers the possibility to gain insights from different perspectives and therefore provides an explanation of payment behaviour, the “why”, and not merely a prediction. Additionally, the openness for extensions facilitates the testing of factors like moral norms or past behaviour, which are of high relevance in practice within the mail-order industry. Moreover, statistical methods such as structural equation modelling fit to the analysis of the theory’s components and provide support for the results of the study. For these reasons, I am of the opinion that this theoretical framework will function well as applied to “payment behaviour”. Another reason for my belief is the diversity of situation (e.g. medicine, psychology, economics) in which this theory was successfully applied. “The theoretical and practical appeal of both the TRA and TPB is that the theories clearly direct researchers and practitioners toward proven strategies for successful influence” (Hale, Housholder, & Greene, 2002, p. 281). Moreover, this theory stresses the importance of benefit and cost arguments and views people primarily as utility-maximizing actors (Ajzen, 1991; Bamberg & Schmidt, 2003). “It assumes that when confronted with the choice between two behavioral alternatives, an actor selects that alternative associated with the most positive behavioral consequences” (Bamberg & Schmidt, 2003, p. 267).

#### ***3.4.4.8 Limitations of the TPB***

The TRA and TPB have been discussed and criticized by various authors. For instance, Warshaw and Davis (1985) postulated that intention and expectation regarding future behaviour are distinct constructs easily separable in individual’s minds, but “social psychologists have unknowingly lumped them together under the intention rubric” (Warshaw & Davis, 1985, p. 214). This confusion of intention and expectation was exposed by Warshaw, Sheppard, and Hartwick (1983; as cited in Warshaw & Davis, 1985), who observed that frequently intention was measured by asking individuals whether they *intend* to perform a specific behaviour, and sometimes by asking them whether they *will* perform it. They argued that the latter targets behavioural expectation, not behavioural intention. Fishbein and Stasson (1990) responded to these two studies and

clarified that this distinction is only necessary and meaningful when the behaviour is not completely under volitional control (see also Stasson & Fishbein, 1990). "Thus, for behaviors under volitional control, measures of what one intends, will try, or will do are all valid indicants of the same latent variable, namely intention" (Fishbein & Stasson, 1990, p. 177).

A limitation of both the TRA and TPB is the divergence between measured intention and subsequent behaviour depending on the time interval. As the potential for more alteration in opportunity and intention might arise in an extended period, the incongruity between intention and behaviour increases (East, 1993). Foxall (1984) argued that situational interventions such as changes in social and physical constitution would occur between measured intention and future behaviour. This is a significant weakness of the theory (East, 1993). However, in an extended time period, predictions built on any system necessarily become weaker (Foxall, 1984; as cited in East, 1993).

Ajzen (1991) himself critiqued the model:

"The moderate correlations between global and belief-based measures suggest that the expectancy-value formulation may fail adequately to describe the process whereby individual beliefs combine to produce the global response. Efforts need to be directed toward developing alternative models that could be used better to describe the relations between beliefs on one hand and the global constructs on the other" (p. 198).

However, in contrast to the TRA, the TPB "introduces only one new variable when there is continuing evidence that factors add predictive power over and above the measures formally incorporated in the TPB" (Davies, Foxall, & Pallister, 2002, p. 37). A modified extended model including additional factors, for example, moral norms, would be a solution to increase the explained variance in the behaviour under observation in this study, namely payment behaviour. This was therefore considered in the design of this study (please see chapter 4).

### 3.5 Conclusion

Ajzen (1991) stated that the explanation of the complexity of individual's behaviour is a challenging task where possible approaches range from "physiological processes at one extreme to concentration on social institutions at the other" (Ajzen, 1991, p. 179). Therefore, there are various factors influencing the behaviour of customers. I think that a company requires a wealth of information and knowledge to reduce the costs of unpaid debts, because of the individuality of all human beings. Moreover, I think it is part of the company's social responsibility to lower over-indebtedness in its society. A major component to avoiding future defaults might be based on a deeper understanding of why individuals choose whether or not to pay invoices. The aim of explaining bad-debt behaviour is an ambitious approach and goes far beyond prediction of payment behaviour. Explanation means "identifying the determinants of intentions and behavior and specifying how these factors combine" (Sutton, 1998, p. 1318). An important goal of this research is to develop a causal model, which carefully specifies the causal paths and the interdependences of the variables. Predicting who is at high risk for becoming a bad debtor without explanation of the causes can be conducted with statistical methods, even if the underlying causal processes are not well understood (Sutton, 1998). However, understanding and explaining the factors that lead only a portion of the population to develop a payment problem, and not merely predicting it, would be even more useful. The explanation would identify which individuals belonged to the target population and would indicate solutions for those individuals. This outcome would have implications for design of a potential debt intervention programme (Sutton, 1998).

This review has shown the negative impact of unpaid debts both for consumers as well as for companies. No systematic review has yet been conducted on payment behaviour within the retail market or in the context of the mail-order market. In general, apart from descriptive statistics concerning social realities (e.g. Knobloch & Reifner, 2013) there were few empirical findings in the realm of personal economics, which by its interdisciplinary nature, provides an interesting research approach (Barry, Schiebe, & Breuer, 2013). Furthermore, no literature was found to date that addressed solutions regarding unpaid debts

for a German mail-order company from a behaviour perspective. But several reviews or meta-analyses, e.g. Armitage and Christian (2003), conceptualize human behaviour and its application in several special fields of economics. The superiority of the TPB within the environment of indebtedness and debt was highlighted by Chudry, Foxall, and Pallister (2011). The authors stated that indebtedness is the result of behaviours that are not completely under one's volitional control. This supports the choice of the TPB, as other attitude-intention-behaviour relationship measurement underlies volitional control (e.g. TRA) (see Chudry, Foxall, and Pallister, 2011). Therefore, in accordance with the work of Chudry et al. (2011), the "inclusion of PBC as a determinant of intention to engage in the target behavior, and thus indirectly of that behavior itself, and the behavior itself directly makes the TPB the methodology of choice" (p. 120).

A result of the literature review is a necessity for a mail-order company to further investigate the field of payment behaviour to increase their association work, increase customer-satisfaction, avoid the loss of profit, and uphold their responsibility for society. Applying the TPB and investigating the extension of both moral norms and past behaviour are the means to reach this goal. Realistically, the application of the TPB will not predict and explain 100% of the variance (ideal maximum). However, as Sutton (1998) stated, it will perform "well when judged in relation to typical effect sizes in the behavioral sciences" (p. 1333).

### **3.6 Summary**

Within this chapter, literature covering both aspects of being over-indebted and the outcome, and literature covering behavioural theories or the "why" was reviewed. The development of over-indebtedness and its typical process and main triggers were examined, and using the TPB as the underlying theoretical framework was outlined for the methodological part of this thesis. Several meta-analyses and studies were reviewed and provide further insight into the suitability of the TPB to this study. Chudry, Foxall, and Pallister (2011, p. 120) stated that the TRP is superior for application in studies examining students who borrow money with its "proven record within the field of psychology for

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predicting the ways in which individuals choose to act” (see Andrykowski, Beacham, Schmidt, & Harper, 2006; Conner & Armitage, 1998; Foxall, 1994, Foxall, 2008; Godin, Valois, & Lepage, 1993; Terry & O’Leary, 1995 as cited in Chudry, Foxall, and Pallister, 2011). Therefore, it would similarly appear that there is a distinct rationale for its application to the investigation of payment behaviour of over-indebted customers. The application of the TPB will address my research questions and will provide deep insights into the behaviour of over-indebted consumers of mail-order companies.

The following chapter outlines the methodology of the study.

## **CHAPTER 4: METHODOLOGY AND METHODS**

The previous chapter demonstrated the effectiveness and suitability of the TPB for this study. This chapter highlights the methodology used in this thesis. It demonstrates how the data was collected and analysed. It clarifies the research questions and the methodology of the research process. Central to this part is the design of the questionnaire, which was used for both imprisoned and not-imprisoned respondents. Several stages were necessary to appropriately design best fit to the research questions and to provide best usability regarding participation of the study. As the target group was under psychological pressure due to their specific situation, the following sections highlight the effort undertaken to data gathering. The beginning of this chapter provides insights into the underlying research paradigm, which clarify my position as a rational scientific researcher of behavioural aspects.

### **4.1 The underlying research philosophy**

Competent practitioners are specialists within their field of work. Applying their knowledge of practical work and integrating research confers new insights to both sides, particularly in dynamic worlds like the mail-order business and e-commerce. This personal view is in accordance with Schön (1995) who stated “that competent practitioners usually know more than they can say. They exhibit a kind of knowing in practice, most of which is tacit” (p. viii). In observing the need to change something to grow, I realized that “in times of crisis or radical change reflection becomes more important and also more difficult: it is at these times that we make powerful decisions about our future” (McGill & Beaty, 2002, p. 11).

Based on personal experience, the typical practice at German Universities is to examine the research design by considering whether questionnaires are suitable or not and by evaluating statistical approaches for their efficacy. My personal development with regard to self-reflection and research philosophy was both influenced by theory in taught modules at the University of Gloucestershire and a personality test based on the theory of Carl G. Jung (Jung, 1921). I started the process of reflection; “in which individuals engage to explore their experiences in order to lead to new understandings and



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- The underlying research philosophy -

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appreciations” (Boud, Keogh, & Walker, 1994, p. 19). This process was frustrating as it is not a simple equation to solve. However, I felt comfort as I read that “over the years we have witnessed students feeling angry, challenged, threatened, demoralized, shocked and put off by the need to develop reflective practice, the ‘leap into the unknown” (Trelfa, 2005, p. 208). This quotation describes several stages in the process of my personal reflection. In accordance with Kolb (1984), reflection is a crucial component of learning - a learning cycle. The cycle is “an ongoing process, so you will never achieve perfection. You will always find other ways of doing things based on your learning from previous experiences” (Alsop & Ryan, 2001, p. 171). If practical experience is to result in learning, then an individual will need to reflect on or evaluate that experience (Moonie, 2004). “Reflection thus implies that something is believed in (or disbelieved in), not on its own direct account, but through something else which stands as witness, evidence, proof, voucher, warrant; that is, as ground of belief” (Dewey, 1933, p. 8). This quotation reflects and refers to my philosophical position.

Today, I realize and know that reflective practice enables me to learn from my own experience and reveals the manner in which I relate to culture and individuals significant to me (Bolton, 2010). Bolton (2010) parallels my view with the statement that reflective practice “provides strategies to bring things out into the open, and frame appropriate and searching questions never asked before” (p. 3). However, practitioners are “frequently embroiled in conflicts of values, goals, purposes and interests” (Schön, 1995, p. 17) and the “researcher’s role is distinct from, and usually considered superior to, the role of the practitioner” (Schön, 1995, p. 26). During the learning process, I came to the conclusion that research, both quantitative and qualitative, has underlying assumptions when defining ‘valid’ research and which corresponding research methods are necessary (Myers, 2009). Looking back at the process of personal learning within the learning cycle, it became obvious that I was in this ascending loop. I gained new insights and aspects for my life which are both personal and academic considerable. It was very arduous and often frustrating but I think it was worth it.

#### 4.1.1 Deduction of research philosophy

Quantitative and qualitative research mirror epistemologically grounded beliefs about what constitutes 'valid' and acceptable knowledge (Bryman & Bell, 2006). Qualitative methods are characterized by close collaboration of the researcher and the respondent instead of relying on inferential empirical material (Denzin & Lincoln, 2005). Instead of treating the researcher as an invisible other, the qualitative researcher's individual standpoint and impact on the research are an integral part of the qualitative research process (Morse & Field, 1995). In contrast, quantitative research projects "emphasize control and quantified measures of performance" (Proctor & Capaldi, 2006, p. 215). Each approach possesses appropriate or inappropriate utility, depending on the subject under investigation, and the research being undertaken (Collis & Hussey, 2003). However, questions regarding the method "are secondary to questions of paradigm, [...] the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways" (Guba & Lincoln, 1994, p. 105). The research philosophy contains important assumptions about one's view of the world, and will therefore impact both the research strategy and the methods (Saunders, Lewis, & Thornhill, 2009). From a practical perspective, it is valuable to understand the presupposed assumptions about the way the world works (Saunders, Lewis, & Thornhill, 2009). However, according to Saunders et al. (2009) "the practical reality is that a particular research question rarely falls neatly into only one philosophical domain" (p. 109).

Table 15 summarizes philosophical positions and illustrates their contrasting characteristics. The following positions were chosen because they demonstrate a wide range of their underlying beliefs. Personally speaking, realism best suits my philosophy and research approach.

## - The underlying research philosophy -

	Positivism	Realism	Interpretivism
<b>Ontology: the researcher's view of the nature of reality or being</b>	External, objective and independent of social actors	Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist)	Socially constructed, subjective, may change, multiple
<b>Epistemology: the researcher's view regarding what constitutes acceptable knowledge</b>	Only observable phenomena can provide credible data, facts. Focus on causality and law like generalizations, reducing phenomena to simplest elements	Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which are open to misinterpretation (critical realism). Focus on explaining within a context or contexts	Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective meanings motivating actions
<b>Axiology: the researcher's view of the role of values in research</b>	Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact on the research	Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective
<b>Data collection techniques most often used</b>	Highly structured, large samples, measurement, quantitative, but can use qualitative	Methods chosen must fit the subject matter, quantitative or qualitative	Small samples, in depth investigations, qualitative

Table 15: Comparison of research philosophies in management research

Source: adopted from Saunders, Lewis, &amp; Thornhill (2009, p. 109)

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- The underlying research philosophy -

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Based on the process of self-reflection, a philosophy that is based on scientific principles and incorporates the perspectives of participants corresponds to my views and prior academic experience. "A major problem for realism is that there are so many different versions of it" (Hunt, 1990, p. 8). The characteristics of the realist, as shown in Table 15, strongly complement my view of the world. However, many critical realists concluded that statistical modelling have to be rejected (Nash, 2005; see also Bhaskar, 1998; Archer, 1998) because quantitative research methods are "worthless, simplistic and misleading" (Pratschke, 2003, p. 18). Thus "critical realism and scientific realism are closely related positions [...] scientific realists maintain that quantification is necessary to science" (Nash, 2005, p. 186). The work of House (1991) emphasized the scientific characteristics within his work "Realism in research," which described the philosophy of science called scientific realism. It is a critique on the "standard view of science" (Scheffler, 1967) that is frequently equated with positivism (House, 1991).

The standard view of science contains the following elements (Maniacs & Secord, 1983, p. 400):

1. A *foundationist* epistemology sees all scientific propositions as founded on data. Hypotheses are to be tested against the facts;
2. Theories are understood as *hypothetical-deductive systems* which gain their meaning through their systematic relations to other terms in the theory or by being connected to observations through operational definitions or correspondence rules;
3. Research is more or less *atheoretical*, seeking to test only hypotheses related to variables that can be closely tied to observations. Predictability being the acid test of theory;
4. A Humean or regularity *conception of causality* and of lawfulness in which causal relations are regular contingent relations between events;
5. A conception of explanation in which explanation is subsumption under laws and in which explanation and prediction are symmetrical.

Scientific realists contend that the standard view misconstrues the nature of science itself by misinterpreting the nature of the real world, by confusing the

- The underlying research philosophy -

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real world with one's sense impressions of it, and by pretending that what cannot be observed does not exist or does not make any difference (House, 1991).

By contrast, the realist theory of science advances the following views (Maniacs & Secord, 1983; House, 1991):

1. Foundationism must be rejected, rather, knowledge is a social and historical product, and facts are theory-laden. The practices of science generate their own rational criteria in terms of which theory is accepted or rejected.
2. The real world and science is complex and stratified so that one is always discovering more complex layers of reality to explain other levels.
3. The Humean or regularity conception of causation is rejected in favour of a conception of causation in which entities act as a function of their basic structure. The task of science is to determine this structure (via a theory).
4. Scientific explanation is not subsumption under covering laws. Rather it is an explanation of how structures of different kinds produce events. Explanation requires knowledge of the causal properties and a notion of the history of other interacting mechanisms. The necessity of explaining events, rather than merely documenting their sequence, is central.

According to House (1991), significant difference exists between a naïve realist and a scientific realist that must be distinguished. For instance, for a naïve realist a lemon is really yellow, whereas a scientific realist would state that a lemon appears yellow because of the refraction of light off the lemon's surface and the specific nature of light waves. A scientific realist would invoke the causal entities and examine the underlying patterns and tendencies (House, 1991).

Boyd (1991) explained the core elements of the philosophical position of a scientific realist. He stated that scientific theories are conformable and showed that the "historical progress of mature sciences is largely a matter of successively more accurate approximations to the truth about both observable and unobservable phenomena" (Boyd, 1991, p. 195). Emergent theories typically build upon the theoretical and observational knowledge which were embodied in previous theories (Boyd, 1984, 1991). Furthermore, he stated that

## - The underlying research philosophy -

scientific theories describe a reality that is largely independent of personal thoughts or theoretical commitments (Boyd, 1991). “Scientific realism is the doctrine that science describes the real world, that the world actually is as science takes it to be and that its furnishings are as science envisions them to be” (Rescher, 1987, p. 4). Bas van Fraassen, who coined the term ‘constructive empiricism’ and who was Boyd’s most tenacious philosophical opponent (Tomberlin, 2001), described the “correct statement of scientific realism” (van Fraassen, 1980, p. 8) as: “Science aims to give us, in its theories, a literally true story of what the world is like; and acceptance of a scientific theory involves the belief that it is true” (van Fraassen, 1980, p. 8). This definition is pragmatic as it demonstrated that science *aims* to provide a true story; however, history demonstrated that different theories were false (e.g. Aristotle and The Orbit). Thus being false, theories were to a degree successful in explanation and prediction of observed facts and therefore close to truth (Cruse, 2003). The “epistemology of empirical science is an empirical science” (Boyd, 1990, p. 227) and therefore “a realist epistemology of science should employ no methods other than those used by the scientists themselves” (Psillos, 1999, p. 75).

In general, scientific realism embodies four theses (Boyd, 1983, p. 45):

- (i) *“Theoretical terms” in scientific theories (i.e., non-observational terms) should be thought of as putatively referring expressions; scientific theories should be interpreted “realistically”.*
- (ii) *Scientific theories, interpreted realistically, are confirmable and in fact often confirmed as approximately true by ordinary scientific evidence interpreted in accordance with ordinary methodological standards.*
- (iii) *The historical progress of mature sciences is largely a matter of successively more accurate approximations to the truth about both observable and unobservable phenomena. Later theories typically build upon the (observational and theoretical) knowledge embodied in previous theories.*
- (iv) *The reality which scientific theories describe is largely independent of our thoughts or theoretical commitments.*

## - The underlying research philosophy -

In sum, scientific realism proposes that the task of science is to establish genuine knowledge, even though it is never known with certainty (Hunt, 1990). Therefore, all assertions of knowledge have to be tested and critically reviewed to evaluate their scope of representation or correspondence to the world that exists independently of its being perceived (Hunt, 1990). “The basic claim made by scientific realism [...] is that the long-term success of a scientific theory gives reason to believe that something like the entities and structure postulated by the theory actually exists” (McMullin, 1984, p. 26). Figure 20 demonstrates the view of reality of scientific realism.

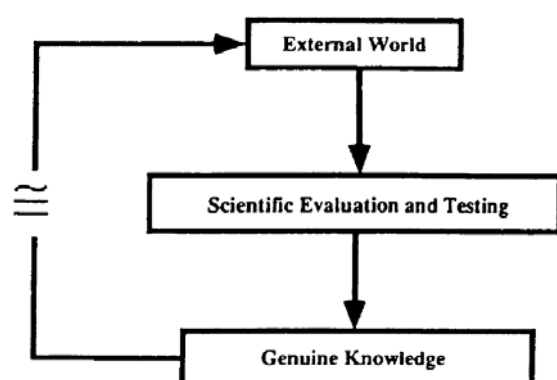


Figure 20: Scientific Realism's View of Reality

Source: Peter (1992, p. 73)

Peter (1992, p. 73) addressed the problem of this view with “How can scientists know how close they are to reaching the standard?” or as Cherryholmes (1992, p. 14) asked “How do you know that you know this?” A suitable answer, is that one has an explanation of reality or a theory if “one can understand how the entity acts, which must always be in terms of tendencies and probabilities, since events are the outcomes of complex causal configurations, which sometimes cancel each other out” (House, 1991, p. 3).

#### 4.1.2 Scientific realism - rationale for this study

According to the previous section, this research is based on a scientific realist assumption, because “to have a good reason for espousing a theory is *ipso facto* to have good reason for saying that the entities postulated by the theory really exists” (Sellars, 1963, p. 97). Furthermore I am in agreement with the statement that the “unique attraction of realism is the nice balance of feasibility and dignity that it offers to our quest of knowledge” (Wright, 2003, p. 11).

## - The underlying research philosophy -

Moreover, I agree with the central theses of scientific realism as offered by Psillos (2000) as presented in Table 16:

<b>The metaphysical thesis</b>	The world has a definite and mind-independent structure.
<b>The semantic thesis</b>	Scientific theories should be taken at face value. They are truth-conditioned descriptions of their intended domain, both observable and unobservable. Hence, they are capable of being true or false. The theoretical terms featuring in theories have putative factual reference. So, if scientific theories are true, the unobservable entities they posit populate the world.
<b>The epistemic thesis</b>	Mature and predictively successful scientific theories are well confirmed and approximately true of the world. So, the entities posited by them, or, at any rate, entities very similar to those posited, inhabit the world.

Table 16: constitutive theses of scientific realism

Source: Psillos (2000, p. 706)

In my opinion the first thesis in Table 16 is of utmost importance, because it distinguishes scientific realism from all anti-realist accounts of science (Psillos, 2000; see also Dummett, 1982; Putnam, 1981, 1982, 1984, 1990 as cited in Psillos, 2000). Moreover, Cacioppo, Semin, and Berntson (2004) stated that scientific realism has the following strengths that led to improvements in psychological theory and method. Those reflect my thoughts and were applicable and significant for the aim of this study. First, being reducible to the truths of logic and mathematics, it contributes to the content of theory. Second, by extending our senses through instruments and procedures justified by theory (theoretical constructs), theoretical statements about unobservable phenomena can be rendered observable (Hacking, 1983). Third, in order to guide empirical observation a priori hypotheses are of importance. Fourth, the purpose of empiricism in theory is to test whether the knowledge representation is true. Fifth, the explanatory power of a theory is defined by its predictive power. Thus, a theory which offered a novel prediction is to be favoured over one developed later to account for the observation (Cacioppo, Semin, & Berntson, 2004). Scientific realism can have a negative impact on research based on its outcome driven structure, which focuses on seeking to establish a concept that be regarded as the truth (Cacioppo, Semin, & Berntson, 2004). If a theory is



regarded as true, then it must be defended by disproving competing theories. This stance can impede progress and elevate justification above utility (Cacioppo, Semin, & Berntson, 2004).

In general, “Scientific realism fosters theoretical rigor, verifiability, parsimony, and debate” (Cacioppo, Semin, & Berntson, 2004, p. 214). Therefore, this perspective is a decidedly suitable approach for this thesis because the TPB could be arranged with the same characteristics. In my view, statistical relevance and significance with its related techniques of quantification are very important aspects for obtaining truth in scientific research. Moreover, consistent with the principle of scientific realism, historical analysis reveals clear progress in theoretical representations of physical and social phenomena (Boyd, 1983) and each scientific discovery led to a closer approximation of reality (Cole, 1997). As the progress in science is largely incremental, each significant discovery reveals more substantive representations of reality (Cole, 1997).

Finally, scientific realism emphasizes the testing of theories in order to provide evidence of successful concepts. Therefore, “theories comprising such diverse concepts such as “attitudes”, “intentions”, “market segments”, [...] give us warrant (to the extent such theories are successful) that these entities have a real existence and the theories comprising these entities truly “say something” about the world” (Hunt, 1990, p. 11).

After outlining the underlying research philosophy and defining the research problem, the next challenge is the preparation of the research design (Kothari, 2006).

## **4.2 Research purpose and design**

“Attempts to answer the ‘why’ questions in social science are theories” (de Vaus, 2005, p. 5) and the “function of research is to either create or test a theory. Research is the instrument used to test whether a theory is good or not. It is the process by which data is gathered to generate a theory or used to test a theory” (Cano, 2010, p. 1). Using a scientifically proven theory to get insights in the payment process was a necessity for my work. In general, my investigation is calculated to provide companies with a more thorough indication of how

## - Research purpose and design -

consumers behave and of the attitudes, beliefs, and norms that influence their behaviour in the context of payment within the mail-order industry. In a long-term perspective, this research could provide information for the work in trade associations of mail-order companies to influence legal aspects to reduce negative social and financial aspects for consumers.

Relative to my philosophical position, I choose a quantitative approach because “science must rely on actual measurement of scientific data” (Kraus & Allen, 1987, p. 25). In this quantitative research and in general, the distinguishing concerns are measurement, causality, generalization, and replication (Bryman & Bell, 2006). Therefore, ample information has to be collected. “In quantitative research, the hypotheses and research questions are often based on theories that the researcher seeks to test” (Creswell, 2003, p. 119). Within this research the TPB will be applied. This theory best complements my philosophical position because its applications were well tested by different scientific methods, in particular statistical analyses, e.g. seen in the meta-analysis of Armitage and Conner (2001). Moreover, in the last 40 years this theory was further developed and tested using scientific methods. The cross-sectional research design is used, which is described as “the best known and most frequently used descriptive design” (Wrenn, Stevens, & Loudon, 2007, p. 47). I opted for this design because a cross-sectional design gathers data on many cases at a single point in time in order to collect data in connection with several variables, which are then examined for pattern association (Bryman & Bell, 2006).

This research has the design / components demonstrated in Table 17.

Global aspect	Specify in this research
<b>Title of the study</b>	Investigation of consumer over-indebtedness within the German mail-order industry using the TPB.
<b>Statement of the problem</b>	Minimizing the social effects and loss of bad-debts by anticipating payment intention of consumers.
<b>Review of the previous studies</b>	Literature review focusing on consumer behaviour and payment behaviour.
<b>Definition of Concept or Theoretical principles</b>	Using the TPB to investigate the influence of beliefs, norms, and attitudes toward payment intention. Investigation of extensions of the TPB to improve accuracy.

## - Research purpose and design -

Global aspect	Specify in this research
<b>Coverage and Scope of the Study</b>	German mail-order industry and its potential over-indebted consumers.
<b>Objectives of Study</b>	<ol style="list-style-type: none"> <li>1. Has debt increased among German consumers, and if so, why has it?</li> <li>2. How is debt perceived among German over-indebted consumers?</li> <li>3. With reference to the TPB, what are the influences of beliefs, attitudes, subjective norms, and perceived behavioural control towards the intention of payment debt on time?</li> <li>4. What lessons emerge to a) understand over-indebtedness in German consumers and b) enable the German mail-order industry to manage customer-debt in the future?</li> </ol>
<b>Formulation of Propositions</b>	Based on the four objectives corresponding propositions were outlined.
<b>Methods of investigation</b>	Using a questionnaire, based on the elements of the TPB. Using statistical methods (structural equation modelling) to gather information to test propositions.
<b>Sampling Design</b>	Asking over-indebted consumers with a questionnaire (convenience sample). Debt counsellors work as gatekeepers to get access to the population.
<b>Constructing of questionnaire</b>	Asking questions directly bearing on behaviour in the context of payment, regarding the special aspects of the theory of planned behaviour. Different stages (e.g. interviews with debt counsellors) guarantee best fit.
<b>Data collection</b>	Using the questionnaire (pilot-test, etc.), collecting data and analyse the information.
<b>Analysis of data</b>	To fulfil the objective or prove the propositions, an analysis of the data is necessary. Therefore structural equation modelling is used.
<b>Interpretation of results</b>	Drawing inferences based on usual test for significance and relate with previous findings, to a wider field of generalizations and to scientific objectivity.
<b>Reporting the findings</b>	Reporting that what has been discovered or innovated.

Table 17: Preliminary research design

Source: adapted from Kumar (2002, p. 63)

### 4.3 Research data, ethics, methods and procedures

As previously discussed, the systematic literature review was the initial component of data gathering. Applying the TPB as the theoretical framework of this thesis required a large amount of information. The theoretical constructs shown in the TPB-model are hypothetical or latent variables (Ajzen, 1991). "They cannot be directly observed but must instead be inferred from observable responses" (Ajzen, 2002, p. 2). A questionnaire will be used in this research to achieve specific responses; it is a substantial instrument whether the researcher knows precisely what is essential to measure the variable (Bailey, 1994). Furthermore, a questionnaire is suitable for gaining sensitive information such as personal attitudes (Raoprasert & Islam, 2010). In particular, behavioural decision-making models such as the TPB "have tended to rely on self-reports, despite evidence to suggest the vulnerability of such data to self-presentational biases" (Armitage & Conner, 2001, p. 475). Beck and Ajzen (1991) stated that their work with the TPB also relies on self-reports to assess the main constructs of the theory, "like much research in social and personality psychology" (p. 299). Additionally, prediction is superior for self-reported than observed behaviour (Armitage & Conner, 2001). The questionnaire had many advantages compared to a qualitative approach including: low cost in time and money, respondents could complete the questionnaire at their convenience, respondents' anonymity, and the standardization of questions. However, there were several disadvantages: including problems of data quality in the matter of completeness, low response rate, and problems of motivating respondents, which impacted the sample size and respondents (Gillham, 2004).

It is appropriate to test the elements of the TPB by standardized questioning, which is ideally conducted with two points of measurement. Using two points of measurement, it is possible to determine the causality between behavioural intention and behaviour and to show that the measured intentions precede behaviour (Rossmann, 2011). If intention and behaviour are compiled at the same point of time the causal relation is not given. It could be that the respondents adapt their intention to the actual behaviour - consciously or unconsciously (Rossmann, 2011; see also Albarracín, Johnson, Fishbein, & Muellerleile, 2001; Osberg & Shrauger, 1986). The prediction of behaviour based on intentions may be limited by a long period of time. If the intention to

perform a specific behaviour is measured over a long period of time, it may be that the initial intention has altered and therefore the actual behaviour changed (Rossmann, 2011). However, as shown by different studies, there is a determinative relationship between intention and actual behaviour (see e.g. Ajzen, 1991; Armitage & Conner, 2001). In order to guarantee anonymity, no personal contact information will be collected. This approach will most likely increase the participation quota of this sensitive research. Therefore, this work will only focus on the prediction of intention and use only one measuring point. Only one contact to the debtors is necessary. The outcome of this study will still have explanatory power, as Ajzen (1991) stated that behaviour and intention are highly correlated.

While designing this questionnaire and testing it with a pilot-group the following connectivity for the TPB is important: The behaviour of interest has to be specified in terms of its target, action, context, and time elements (TACT-principle) (Ajzen, 2002), therefore the questionnaire had to provide an appropriate answer to those elements. Because of the sensitive topic of payment behaviour, interviews with debt counsellors gave insight to the design of the questionnaire and the questions asked. And therefore: The questions we ask determine the answers we get (Schwarz, 1999). Furthermore, each survey is more than a general inquiry and questions needs to be chosen deliberately. Questions are necessary to gain responses and determine the distribution of characteristics in the survey population (e.g., beliefs, attitudes, behaviour) (Dillman, Smyth, & Christian, 2008). The social desirability bias would probably be one of the major issues collecting the research data due to the sensitive topic of payment behaviour as it relates to aspects of over-indebtedness, personal failure, or criminal intent. The social desirability bias is often created in “survey responses from respondents’ desire to be viewed more favorably by others, typically resulting in over-reporting of ‘positive’ behaviors and underreporting of ‘negative’ behaviors” (McBride, 2010, p. 185; see also Crowne & Marlowe, 1960; Leary & Hoyle, 2009; Walford, Tucker, & Viswanathan, 2009; Edwards, 1957). Humans desire to be seen in a favourable light. This means people under-report behaviours that are considered bad by society and over-report behaviours that are considered socially desirable

## - Research data, ethics, methods and procedures -

(Pearson, 2010). Social desirability bias can manifest itself both in stated behaviour such as exaggerating environmentally friendly behaviour or in the attitudes that a respondent expresses (Brace, 2004). Sudman & Bradburn (1982) identified topics in which behaviour is likely to be over-reported respectively under-reported (see Table 18).

Over-reported	Under-reported
Being a good citizen e.g. interacting with government official	Illness and disabilities e.g. cancer, mental illness
Being a well-informed and cultured person e.g. reading newspapers, using libraries	Illegal or contra-normative behaviour e.g. committing a crime, drug use
Fulfilling moral and social responsibilities e.g. giving to charity and helping friends in need; being employed	Financial status e.g. income, savings and other assets

Table 18: Social desirability bias and related behaviour

Source: Sudman & Bradburn (1982, pp. 32-33)

This research covers different fields of the Table 18 including social responsibilities, being well-informed, and legal behaviour. Therefore, both over-reported and under-reported topics are addressed in this study. Finally, the questionnaire was not enriched with questions covering the Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1960) or shorter versions (e.g., Robert & Gerbasi, 1972). The main reason for this decision was the consensus among debt counsellors that the questionnaire would be much too long for their clients. Adding further questions would dramatically reduce the number of responses. The alternative of deleting questions about beliefs would be an unfortunate option.

Several factors were conducted to minimize the bias. The anonymity of the questionnaire and data gathering at a single point helped in that case. A further solution to reduce bias was the choice to ask sensitive questions via a self-administrated medium or computer survey rather than face to face (Tourangeau & Smith, 1996; Turner, Ku, Rogers, Lindberg, Pleck, & Sonenstein, 1998). Moreover, asking the questions in the same way to different people is the key of most survey research (Brace, 2004). Statistically analysis would also have demonstrated overt bias due to extreme outliers in responses. Moreover,

“there is evidence that in many situations, self-reports of dishonest behavior can be quite accurate (Himmelfarb & Lickteig, 1982)” (Beck & Ajzen, 1991, p. 291). In sum, social desired bias is a limitation of this study but significant effort was made to minimize it.

Figure 21 shows the complete process of this study.

- Research data, ethics, methods and procedures -

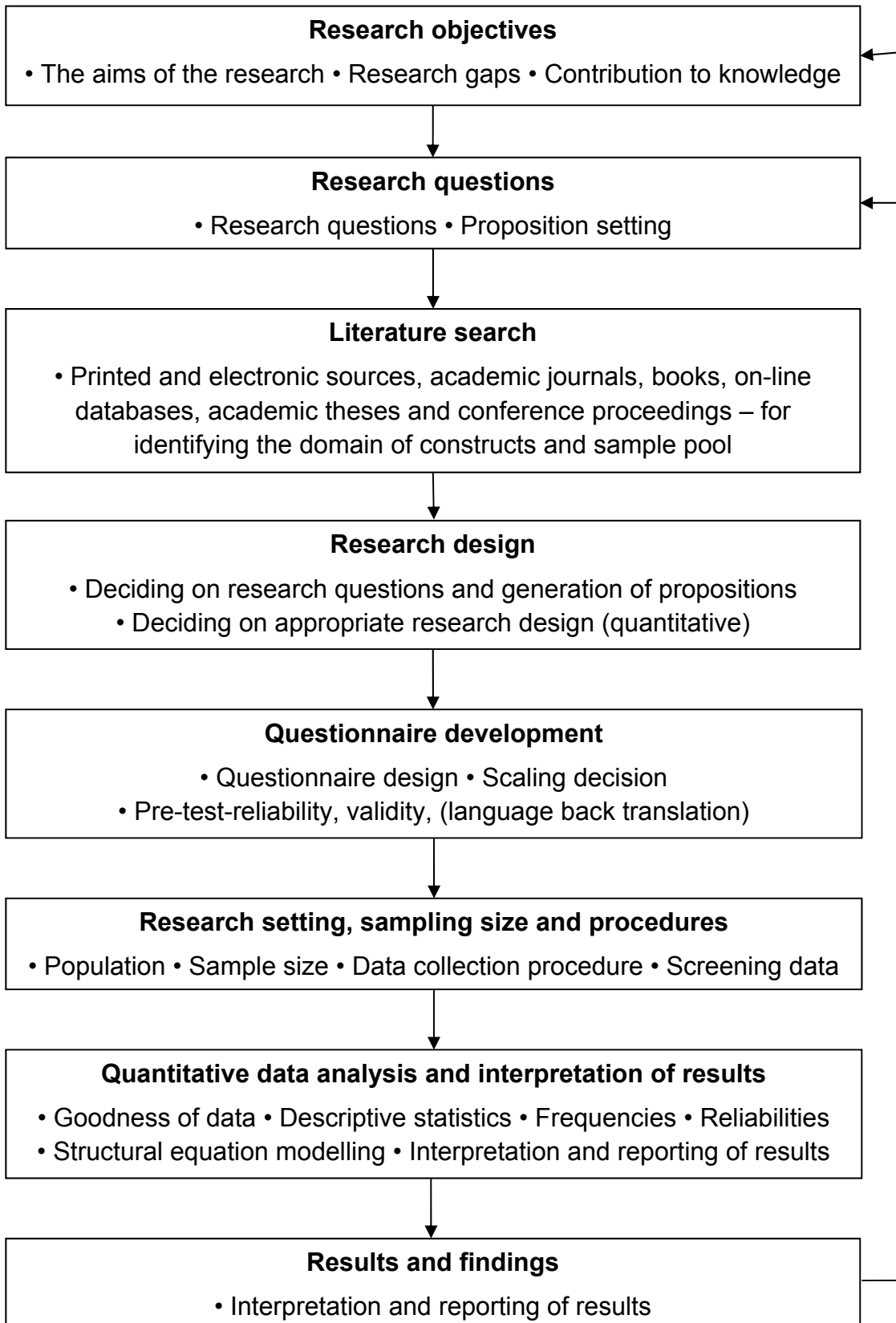


Figure 21: The research process

Source: adapted from Raoprasert & Islam (2010, p. 64)



#### 4.3.1 Research ethics

Attending to research ethics was highly significant due to the sensitive topic of personal over-indebtedness or private bankruptcy. Babbie (2012) identified the following ethical issues in social research that were considered within this study: voluntary participation, confidentiality and anonymity, preventing harm to the participants, no deception, institutional review boards, and professional codes of ethics. Therefore, the whole process of writing this thesis was covered by the University's Research Ethics Sub-Committee. This study needed and received full ethical approval from the University.

There were two important stages of gathering data which were strictly distinguished:

1. Interviews with five highly experienced debt counsellors were conducted to get general insights of payment behaviour and the causes of over-indebtedness. These counsellors were recruited by speaking with different charitable or ecclesiastic institutions about their experiences with their clients who have outstanding accounts at mail-order companies. The aim of this thesis was explained and demonstrated that no personal information about their clients was needed. This stage had the task of getting widespread information about the design of the questions in the following questionnaire. Due to their duty of keeping information confidential, the debt counsellors were aware which aspects they might not share.
2. Based on this information, the process of data collection then relied on an anonymous questionnaire-survey submitted by different informed debt counsellors. The questionnaire had a survey cover sheet with tick boxes, which outlined information about anonymity, confidentiality, and voluntary participation. There was no need to know the names or any private information. The questionnaire was absolutely anonymous and by returning the completed questionnaire with the ticked cover sheet, the evidence of understanding and consent of the participants was assured.

Debt counsellors were used as gatekeepers. There was no direct contact with the researcher, so the respondents had no contact with an "outsider" that might cause them distress. As the debt counsellors were trained professionals, their

professional judgement was used in terms of the timing of questionnaire distribution to ensure it was appropriate and sensitively managed within the client counsellor relationship. Return of the questionnaire was also through the counsellor. This was managed by providing return envelopes into which the questionnaires could be placed and returned. This method ensured that participants did not have to pay to return questionnaires and that the location for return was in a secure environment.

The questions on the questionnaire focused on attitudes, beliefs, and volitional control. The survey did not seek to elicit specific information on the debt levels of the individual. The questionnaire did not cover issues that extend beyond the scope of the research, which focuses on payment behaviour and the causes of over indebtedness. These were issues discussed as part of the participant-counsellor relationship; therefore, the questionnaire did not go beyond the scope of these interactions and would likely have a narrower focus. This ensured that participants were facing issues that had already surfaced through their engagement with the debt counsellor which minimized the psychological risk to the participant. Participants gave informed consent to participate and had the right to withdraw at any point. As the debt counsellors were acting as gatekeepers and the researcher did not interact directly with individual participants, this also minimized psychological harm to the researcher.

#### **4.3.2 Analysis**

The meta-analysis of the TPB (Armitage & Conner, 2001; Ajzen, 1991; Godin & Kok, 1996) provides support for the efficacy of the theory as a predictor of intention and latter behaviour. Table 19 emphasizes the result and the relationship gathered from quantitative analyses of studies using the TPB.

## - Research data, ethics, methods and procedures -

Relationship	N of tests	R <sup>a</sup>	R <sup>2</sup>	Fail-safe N	$\chi^2$
Multiple correlation (BI + PBC) with behaviour	63	.52	.27	65,347	648***
BI-behaviour correlation	48	.47	.22	26,235	396***
PBC-behaviour correlation	60	.37	.13	27,498	677***
% variance added by PBC to behaviour	66	.14	.02	3815	285***
Multiple correlation (ATT + SN + PBC) with BI	154	.63	.39	986,974	3231***
ATT-BI correlation	115	.49	.24	326,497	1050***
SN-BI correlation	137	.34	.12	201,774	1167***
PBC-BI correlation	144	.43	.18	378,681	2224***
% variance added by PBC to BI	136	.24	.06	89,753	1086***
Behavioural belief-ATT correlation	42	.50	.25	34,201	413***
Normative belief-SN correlation	34	.50	.25	20,794	451***
Control belief-PBC correlation	18	.52	.27	6174	269***

\*\*\* $p < .001$ .

Note. <sup>a</sup>Weighted by sample size; BI = behavioural intention; PBC = perceived behavioural control; ATT = attitude; SN = subjective norm.

**Table 19: Average component relationships for tests of the TPB**

Source: Armitage & Conner (2001, p. 481)

Because of the results shown above, the analysis of this research also contains a large number of statistical functions to test the propositions regarding payment behaviour (e.g. Cohen J. , 1988). Some of the data or information “can be analyzed and understood with simple statistics, but much of it requires more complex, multivariate statistical techniques to convert these data into knowledge” (Hair, Black, Babin, & Anderson, 2010, p. 3). Multi regression, multivariate analysis of variance, and discriminant analyses can only examine a single relationship at a time and “do not enable the researcher to test researcher’s entire theory with a technique that considers all possible information” (Hair, Black, Babin, & Anderson, 2010, p. 629). Therefore structural equation modelling was chosen for analysing data. A detailed account of structural equation modelling (SEM) is now given.

#### 4.3.2.1 Structural Equation Modelling

Statistical analysis tools have been used by social science researchers for many years in order to extend their ability to confirm and develop research findings (Hair, Hult, Ringle, & Sarstedt, 2014). Factor or cluster analyses and regression-based approaches such as multiple regression analysis – so called first-generation techniques - belong to the core set of statistical procedures that are applied to both identify and confirm theoretical hypothesis based on empirical data analysis (Haenlein & Kaplan, 2004).

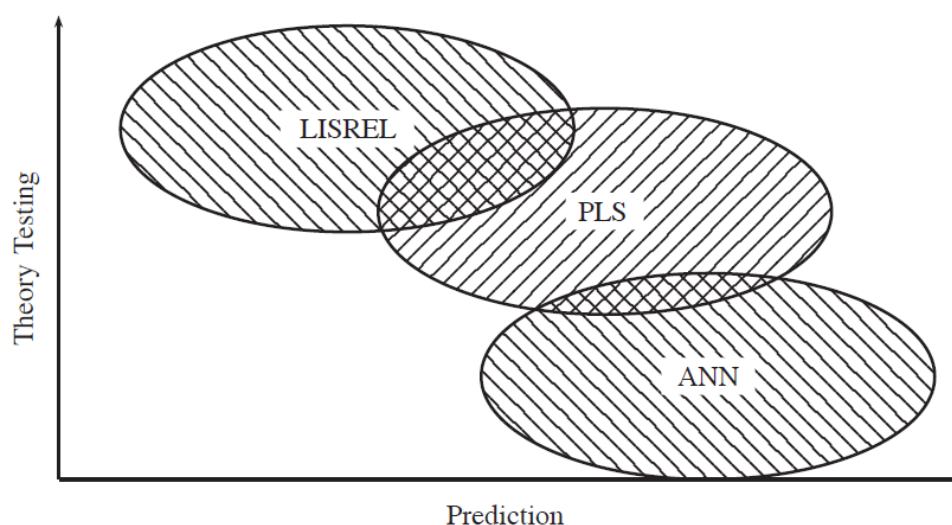
“However, a common factor for all these methods is that they share three limitations, namely, (a) the postulation of a simple model structure (at least in the case of regression-based approaches); (b) the assumption that all variables can be considered as observable; and (c) the conjecture that all variables are measured without error, which may limit their applicability in some research situations” (Haenlein & Kaplan, 2004, p. 284).

In order to overcome these limitations of first-generation statistical techniques, SEM emerges as an alternative (Haenlein & Kaplan, 2004). SEM is, contrary to regression-based approaches which simultaneously analyse only one relation between independent and dependent variables, considered as second-generation statistical technique. SEM allows the modelling of different layers of linkages among multiple independent and dependent constructs at the same time (Haenlein & Kaplan, 2004; see also Gefen, Straub, & Boudreau, 2000).

**“Structural equation modeling (SEM)** is a family of statistical models that seek to explain the relationships among multiple variables. In doing so, it examines the *structure* of interrelationships expressed in a series of equations, similar to a series of multiple regression equations” (Hair, Black, Babin, & Anderson, 2010, p. 634).

SEM is a well-known component of the methodological arsenal of social science (Bollen & Long, 1993; Kline, 2011) and is “a comprehensive statistical approach to testing hypotheses about relations among observed and latent variables” (Hoyle, 1995, p. 1). Structural equation modelling are methodologies that “seeks to represent hypotheses about the means, variances, and covariances of observed data in terms of a smaller number of ‘structural’ parameters defined by a hypothesized underlying model” (Kaplan, 2000, p. 1). The desire to test theories and concepts was one of the major reasons authors conducting business research have embraced SEM (Henseler, Ringle, & Sinkovics, 2009; Hair, Ringle, & Sarstedt, 2011). Figure 22 demonstrates both the possibility of theory testing and prediction by using different approaches of SEM and ANN (artificial neural networks). PLS (partial least square) and LISREL (linear

structural relations) will be discussed in detail. However, ANN will not be regarded based on its typical application where weak theory is employed and no need for understanding underlying relationships is given (Henseler, Ringle, & Sinkovics, 2009; see Desai, Crook, & Overstreet, 1996; and Yobas, Crook, & Ross, 2000 for using ANN in the environment of credit scoring and Hertz, Krogh, & Palmer, 1991; Hill, O'Connor, & Remus, 1996; Levine, 2000; Remus & O'Connor, 2001 for ANN as possible prediction models).



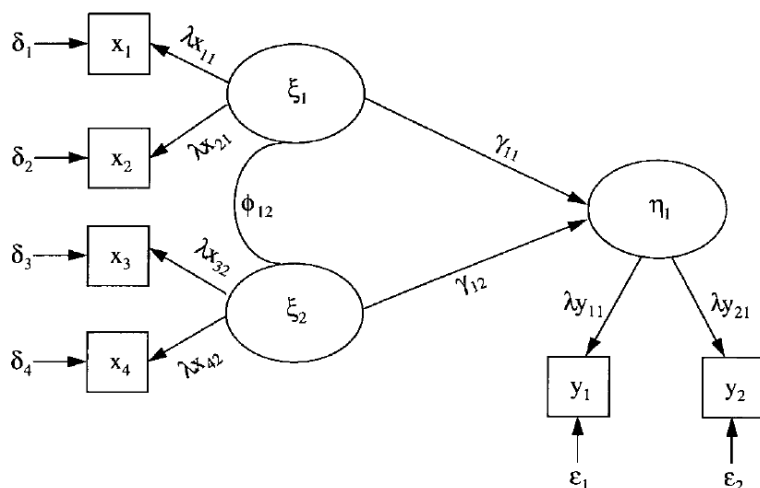
**Figure 22: Statistical approaches in relation to theory testing and prediction**

**Source: Henseler, Ringle, and Sinkovics (2009, p. 296)**

Structural equation modelling enables researchers to answer in depth a set of linked research questions in a single, systematic, and comprehensive analysis by simultaneously modelling the relationships among numerous independent and dependent constructs (Gefen, Straub, & Boudreau, 2000). Therefore, a priori hypotheses were compiled about a pattern of linear relationships among different observed and unobserved variables (Shah & Goldstein, 2006). SEM techniques should not be operated without a strong theoretical foundation for specification of both the structural and measurement models (Hair, Black, Babin, & Anderson, 2010). Therefore, the usage of SEM along with the TPB was best suited for this thesis. Vallerand, Deshaies, Cuerrier, Pelletier, and Mongeau (1992) suggested that SEM with latent variables should be used to contribute a more valid test of the theoretical framework and “it can allow an explicit test of the consistency of any postulated links between mediating and dependent variables with the data” (p. 99). But it has to be taken into account that in “empirical research in which SEM is to be employed, researchers must

carefully choose a strategy and specify one or more models in a fashion that is consistent with the objectives of the research” (MacCallum, 1995, p. 35).

Figure 23 is an example of a reflective measured structural equation modelling diagram with two exogenous and one endogenous variable:



**Figure 23: Example of a SEM diagram**

Source: Leone, Perugini, and Ercolani (1999, p. 171)

In general, there are two types of SEM (Hair, Hult, Ringle, & Sarstedt, 2014). Covariance-based SEM (CB-SEM, applied through statistical software like AMOS or LISREL) determines how well a proposed theoretical model can estimate the covariance matrix for a sample data set. Its primary application is in confirmation (or rejection) of theories (i.e., a set of systematic relationships between multiple variables that can be tested empirically) (Hair, Hult, Ringle, & Sarstedt, 2014). The second type of SEM, PLS-SEM (partial-least-square SEM, also called PLS path modelling), is primarily used to develop theories in exploratory research by focusing on explaining the variance in the depending variables when examining the model (Hair, Hult, Ringle, & Sarstedt, 2014) (see appendix for an overview of model criteria (A-4.1) and basic stages within the PLS-SEM algorithm (A-4.2)). Both SEM approaches - the parametric covariance-based CB-SEM and nonparametric variance-based PLS-SEM - are complementary in that one approach's advantages are the others' disadvantages and vice versa (Hair, Ringle, & Sarstedt, 2011), (see also Fornell & Bookstein, 1982; Henseler, Ringle, & Sinkovics, 2009; Jöreskog & Wold, 1982; Lohmöller, 1989; Schneeweiss, 1991). The covariance-based

CB-SEM model estimation requires several assumptions to be fulfilled (e.g., especially sample size and multivariate normality of underlying data, see e.g. Diamantopoulos & Siguaw, 2000; Hair, Ringle, & Sarstedt, 2011). In the event that presupposed CB-SEM assumptions cannot be met (in particular due to non-normality or sample size) or the research objective is more of a predictive background rather than of confirmation of structural relationships, then variance-based PLS-SEM is the preferred method (Hair, Ringle, & Sarstedt, 2011). PLS-SEM often provides more robust estimations of the underlying structural model than CB-SEM, where results can be highly imprecise when the necessary assumptions are violated (Hair, Ringle, & Sarstedt, 2011; see also Lohmöller, 1989; Reinartz, Haenlein, & Henseler, 2009; Ringle, Götz, Wetzels, & Wilson, 2009; Wold, 1982). However, PLS-SEM parameter estimates have a PLS-SEM bias because they are not optimal regarding bias and consistency (Hair, Hult, Ringle, & Sarstedt, 2014). Although simulation studies demonstrated that the differences between covariance-based and variance-based estimates are minimal (e.g., Reinartz, Haenlein, & Henseler, 2009) and not relevant for most applications, CB-SEM advocates strongly emphasize this limitation (Hair, Hult, Ringle, & Sarstedt, 2014).

In general, the application of PLS-SEM had increased exponentially in a variety of disciplines and made it a viable substitute for the widespread CB-SEM approach (Hair, Hult, Ringle, & Sarstedt, 2014). PLS-SEM has several advantages over CB-SEM. This is particularly true in social sciences research, where in many situations sample sizes are small, complex models with many indicators and model relationships have to be estimated, and/or the data are not normally distributed, (Hair, Hult, Ringle, & Sarstedt, 2014). Therefore, PLS-SEM is evolving as a statistical modelling technique (see e.g. Chin, 2010; Hair, Ringle, & Sarstedt, 2011; Babin, Hair, & Boles, 2008; Bagozzi, 1994; Hulland, 1999; Rigdon E. E., 1998), complete theories and concepts could be tested (Hair, Sarstedt, Ringle, & Mena, 2012).

In sum, “SEM provides a valuable technique for TRA/TPB research in that the implicit assumptions of unidimensionality of constructs are made explicit, with

the result that theoretically meaningful models can be derived and compared with the existing models” (Hankins, French, & Horne, 2000, p. 160). Different studies demonstrated the utility of the TRA by using SEM (e.g., Bentler & Speckart, 1979; Bentler & Speckart, 1981; Ryan, 1982; Fredricks & Dossett, 1983; Granrose, 1984; Oliver & Bearden, 1985). Moreover, the TPB and modified versions (e.g. adding moral norms) have been empirically tested regarding their predictive relationship and support the usage of structural equation modelling (e.g. Mayhew, Hubbard, Finelli, Harding, & Carpenter, 2009; Chang, 1998; Truong, 2009; Henle, Reeve, & Pitts, 2010; Yoon, 2011; Riemenschneider, Leonard, & Manly, 2011). Statistical software was used to analyse the data in this research including: SPSS 20, AMOS 16, and SmartPLS 2.0 (see e.g. Byrne, 2010; Blunch, 2008; Backhaus, Berichson, Plinke, & Weiber, 2008; Weiber & Mülhhaus, 2010; Bühl, 2012, covering SEM analysis).

#### **4.3.2.2 Sampling**

Sample surveys are commonly acknowledged in science as a means of providing statistical data on a wide range of subjects (Kalton, 1983). The sample size is dependent on the statistical approach and the complexity of the model, which signifies the complexity of the underlying theory (Hair, Black, Babin, & Anderson, 2010). The application of SEM also impacts the required sample size because within SEM some of the statistical algorithms are unreliable with small samples (Hair, Black, Babin, & Anderson, 2010).

Within CB-SEM Hair, Black, Babin, & Anderson (2010) suggested the following minimum sample sizes based on the model complexity:

- Minimum sample size – 100: Models containing five or fewer constructs, each with more than three observed variables, and with item communalities of .6 or higher.
- Minimum sample size – 150: Models containing seven or fewer constructs, modest communalities of .5 or higher and no under-identified constructs.
- Minimum sample size – 300: Models containing seven or fewer constructs, lower communalities (below .45) and/or multiple under-identified (fewer than three items) constructs.



The usage of PLS-SEM differs significantly from CB-SEM because of its requirement for sample size. The PLS-SEM algorithm does not compute all structural relationships in the model simultaneously. Instead, it uses several ordinary least squares (OLS) regressions to estimate the model's partial regression relationships (therefore partial-least square SEM) (Hair, Hult, Ringle, & Sarstedt, 2014). This statistical approach has the outcome that the required sample size for PLS-SEM is minor because the overall complexity of a structural model has little influence (Hair, Hult, Ringle, & Sarstedt, 2014). The PLS-SEM approach performs well with small sample sizes. Chin and Newsted (1999) and Hui and Wold (1982) indicated that PLS-SEM is a good choice when the available sample size is small. Unfortunately, several researchers indicated that sample size does not play a role in the application of variance SEM and in situations with smaller sample sizes or complex structural models (Hair, Hult, Ringle, & Sarstedt, 2014). However, the application of PLS-SEM should be in accordance with the 10 times rule (Barclay, Higgins, & Thompson, 1995), which indicates that the "sample size the equal to the larger of

1. 10 times the largest number of formative indicators used to measure a single construct, or
2. 10 times the largest number of structural paths directed at a particular construct in the structural model" (Hair, Hult, Ringle, & Sarstedt, 2014, p. 19f).

Based on the TPB, there is a recommendation about sample size by Francis et al. (2004), who published an often cited guide to applying the theory: "Generally, a sample size of 80 would be acceptable" (Francis, et al., 2004, p. 29). Regarding this recommendation, only the PLS-SEM approach would lead to statistically significant outcomes, as a sample size of 80 is very likely too small for a typical application of the CB-SEM.

In accordance with the application of the TPB, the process of data collection with German consumers relied on a convenience sample with a self-completion questionnaire-survey. Correspondingly, the questionnaire measured the variables identified within the context of indebtedness. This approach also ensured that the potential sensitivities associated with researching debt were

addressed in terms of the nature of the questions, which will be formulated to be exactly compatible with the behavioural criteria. Additionally, because respondents self-complete the questionnaire, it enables respondents be guaranteed privacy and anonymity (See ethical considerations in 4.3.1). According to the statistics of the Federal Statistical Office in Germany, approximately 100,000 new debtors were in the legal bankruptcy programme. A sample size of at least 300 participants was therefore desirable to ensure appropriately sized cell counts for statistical analysis. Based on preliminary investigations and interviews with debt-advisers, the questionnaire might have been provided in the Turkish and Russian languages. However, I am convinced by Popper's (2005) view that:

“Everybody who has done some translating, and who has thought about it, knows that there is no such thing as a grammatically correct and also almost literal translation of any interesting text. Every good translation is an *interpretation* of the original text; and I would even go so far as to say that every good translation of a nontrivial text must be a theoretical reconstruction. Thus it will even incorporate bits of a commentary” (p. 21).

Due to the fact that the translator should be “familiar with the TPB and ways in which TPB questionnaires are normally worded in the target language” (Francis, et al., 2004, p. 28) an alternative language to German was not be provided. English was used only for the documentation of this study; the questionnaire in the appendix was not sent out to respondents in the English version. This is a limitation to the study based on demographic statistics. In 1999, 5.8% of the over-indebted households have members with a migration background and further 11.9% are households with foreign citizens in Germany (Bundesregierung, 2003). As the available data of households with foreign citizens was out-dated, the expected figure will likely be higher. However, based on interviews with debt counsellors, the majority of foreign debtors are able to communicate in German or have family member which could translate. Therefore, this limitation is not as significant as represented by the statistics.

#### 4.4 Preparation and Construction of the Questionnaire

The constructs of the TPB are characterized by hypothetical or latent variables which have to be deduced from observable responses (Ajzen, 1991, 2006). Fishbein and Ajzen's (2009) book included an appendix that provided recommendations about the construction of a suitable questionnaire. Furthermore, Ajzen (2002) provided additional information on how to construct a questionnaire on his homepage, which was revised in 2006 (Ajzen, 2006), and a sample questionnaire (Ajzen, 2012). Francis, et al. (2004) recommended also a well cited and applied approach. These guidelines were strictly followed in the development of the debt counsellors interviews, the pilot questionnaire, and final questionnaire. Past and recent research (in particular Beck & Ajzen, 1991; Knabe, 2012) were also an important source for quality assurance of the methodological approach.

Attitudes, subjective norms, and perceived behavioural control, which are the core elements of the theory, are assumed to be based on a corresponding set of beliefs (Ajzen, 2005). Therefore "Pilot work is required to identify accessible behavioral, normative, and control beliefs. Respondents are given a description of the behavior and are asked a series of questions designed to elicit accessible beliefs" (Ajzen, 2011, p. 2). This pilot work was conducted by interviewing highly experienced debt counsellors and based on their information and answers was conducted again on a pilot group of the population with a pilot questionnaire. The final questionnaire was administered subsequently and also included direct measures of attitudes, subjective norms, perceptions of behavioural control, and intentions (Ajzen, 2011). The outcome of structural equation modelling determined the relative contributions of the constructs of the theory to the prediction of the intention towards payment on time. In addition, the questionnaire also assessed in accordance with the theory behavioural beliefs (beliefs strength and outcome evaluations), normative beliefs (strength and motivation to comply), and control beliefs (strength and perceived power) (Ajzen, 2011). These beliefs provided insights into the underlying cognitive foundation and described why people hold certain attitudes, subjective norms, and perceptions of behavioural control (Ajzen, 2005, 2006, 2011). "The beliefs

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provide a ‘snapshot’ of the behavior’s cognitive foundation in a given population at a given point in time” (Ajzen, 2011, p. 2).

In sum, the construction of the questionnaire and the collection of data had three distinctive stages:

1. Interview with several debt-advisers (peer group)
2. Testing the questionnaire with a pilot group and modification if applicable
3. Applying the final questionnaire.

This process and definition of the questions are described in the next sections.

### **4.4.1 Defining the Behaviour and the Research Population**

The initial step was the definition of the behaviour of interest in terms of its target, action, context, and time (TACT) elements (Ajzen, 2002). “No matter how the TACT elements of the behavior are defined, it is important to observe the *principle of compatibility* which requires that all other constructs (attitude, subjective norm, perceived behavioral control, and intention) be defined in terms of exactly the same elements” (Ajzen, 2006, p. 2).

#### **Behaviour in research: Payment-Behaviour of over-indebted individuals:**

Pay (action) every new invoice (target) from a German mail-order company (context) within the regular term of payment (usually 14 days; time).

As described in the explanation of the main triggers of becoming over-indebted, some individuals were currently over-indebted because of unforeseen events like the death of partner or becoming unemployed. This survey was meant to examine behaviour related to paying future invoice based on an individual’s current circumstances. As unforeseen events might have influenced the current situation, intention might have changed between a former order and current open debts. Necessarily, the survey covered only new orders in the mail-order industry. Again, it is very important to clarify that only over-indebted consumers living in Germany were included in the research population. They should be able to answer a questionnaire which is written in German.

#### 4.4.2 Formulating Items for Direct Measures

Several items are carefully formulated to assess attitude, subjective norm, perceived behavioural control, and intention, which encompass the theory's major constructs (Ajzen, 2002). According to Ajzen (1991)

“In most applications of the theory of planned behavior, belief strength is assessed by means of a 7-point graphic scale (e.g., likely - unlikely) and evaluation by means of a 7-point evaluative scale (e.g., good - bad). There is nothing in the theory, however, to inform us whether responses to these scales should be scored in a unipolar fashion (e.g., from 1 to 7, or from 0 to 6) or in a bipolar fashion (e.g., from -3 to + 3)” (p. 192).

Additionally, Ajzen (1991) suggested that either type of scoring the items could be applied with one and the same justification. “There is thus no rational a priori criterion we can use to decide how the belief and evaluation scales should be scored (cf. Schmidt (1973))” (Ajzen, 1991, p. 193). Cox III (1980) suggested that “the magic number seven plus or minus two appears to be a reasonable range for the optimal number of response alternatives” (p. 420). As 7-point bipolar adjective scales were mostly employed in the theory of planned behaviour and well suited regarding correlation (see e.g. Ajzen, 2002; Hippler, Schwarz, Noelle-Neumann, Knäuper, & Clark, 1991), the items in the questionnaire had a 7-point unipolar semantic differential fashion. Such measures lack a true rational zero point; however, the addition or subtraction of constants from these scores would not change crucial characteristics such as rank order, equal intervals or standard deviation (Ajzen, 1991; see also Holbrook, 1977; Orth, 1985 as cited in Ajzen, 1991).

#### **Examples of predictor variables for direct measures**

Each construct of the TPB was measured by different items. The following examples represent the way the constructs were assessed by the questions. In section 4.5.2 and in the appendix (A-2) the whole questionnaire is accessible.

**Attitude** (adapted from Ajzen, 2002; Francis, et al., 2004)

I consider my paying every invoice within the regular term of payment

honest : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : dishonest

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**Subjective norm** (adapted from Ajzen, 2002; Francis, et al., 2004)

Most people who are important to me think that I should pay every invoice within the regular term of payment.

true : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

**Perceived behavioural control** (adapted from Ajzen, 2002; Francis, et al., 2004)

I am confident that I can pay every invoice within the regular term of payment.

true : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

**Intention** (adapted from Ajzen, 2002; Francis, et al., 2004)

I intend to pay every invoice within the regular term of payment.

definitely : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : definitely do not

**Additional elements**

*Past behaviour* (adapted from Ajzen, 2002; Francis, et al., 2004)

In the past 12 months, I have paid every invoice within the regular term of payment.

never : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : always

*Moral obligation* (adapted from Beck and Ajzen, 1991)

I would feel guilty if I did not pay every invoice from mail-order companies within the regular term of payment.

false : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : true

In general, the set of items to address a construct had to be shown to correlate highly with each other and therefore express high internal consistency (Ajzen, 2006). Ajzen (2006) also suggested Cronbach's coefficient alpha as a generally used figure for measuring and evaluating this purpose.

**4.4.3 Eliciting Salient Behavioural Outcomes**

With the TPB, beliefs play a central role. Beliefs are expected to offer the affective and cognitive bases for attitudes toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 2006). Pilot work was

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required to identify accessible behavioural, normative, and control beliefs (Ajzen, 2006). In order to elicit salient beliefs, readily accessible behavioural outcomes, normative referents, and control factors, a small sample of an individual's representative (focus-group) was recommended and necessary, respectively (Ajzen, 2006). Ajzen (2002) recommended that the elicitation should be done in a free response format. Based on the outcome, a small pilot study with a subsample of the population evaluated the questionnaire and the interconnections among questions (Dillman, Smyth, & Christian, 2008). This was in accordance with Francis, et al. (2004) who stated: "ONE elicitation study can be used to develop the indirect (belief-based) measures for all the predictor constructs in the TPB model" (p. 25). Due to the multiplicity of clients, their profound experience and the sensitive topic of "over-indebtedness," a small group of debt-advisers was interviewed to provide information from their client's point of view. These debt counsellors had a very intensive and sensitive contact with their clients and knew their situations and social environments best.

The following questions were used to get information from the debt counsellor (final questionnaire see appendix A-1). Each question referred to the specific elements of the TPB. The answers determined the pilot questionnaire of the sample population. As recommended by Francis, et al. (2004), the pilot questionnaire was later tested with 25 respondents of the sample population.

### Behavioural outcomes (adapted from Ajzen, 2002, p. 4)

- (1) What do you see as the advantages for your clients of paying every invoice from a mail-order company within the regular term of payment?
- (2) What do you see as the disadvantages for your clients of paying every invoice from a mail-order company within the regular term of payment?
- (3) What else comes to mind when you think from the perspective of your clients about paying every invoice from a mail-order company within the regular term of payment?

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Normative referents (adapted from Ajzen, 2002, p. 4)

When it comes to paying every invoice from a mail-order company within the regular term of payment, there might be individuals or groups who would think your clients should or should not perform this behaviour.

(1) Please list the individuals or groups who would approve or think your clients should pay every invoice from a mail-order company within the regular term of payment.

(2) Please list the individuals or groups who would disapprove or think your clients should not pay every invoice from a mail-order company within the regular term of payment.

(3) Sometimes, when we are not sure what to do, we look to see what others are doing. Please list the individuals or groups who, after an urgent demand for payment, are most likely to pay every invoice from a mail-order company within the regular term of payment following a request to pay.

(4) Please list the individuals or groups who, after an urgent demand for payment, are least likely to pay every invoice from a mail-order company within the regular term of payment following a request to pay.

Control factors (adapted from Ajzen, 2002, p. 4)

(1) Please list any factors or circumstances that would make it easy or enable your clients to pay every invoice from a mail-order company within the regular term of payment.

(2) Please list any factors or circumstances that would make it difficult or prevent your clients from paying every invoice from a mail-order company within the regular term of payment.

During May and July 2013, five representative interviews based on the questionnaire in chapter A-1 were conducted. Those debt counsellors were selected due to their experience gained from working in their profession for approximately up to 30 years and had consulted hundreds of clients. Moreover, their institutions take care up to of approximately 7,000 debt-advice seekers per year. A content analysis of the responses to the above questions resulted in lists of modal salient outcomes, referents, and control factors (reflection of the outcome see in section 9.3). These lists were used to construct items to be



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included in the pilot and respectively, the final questionnaire (Ajzen, 2002). The result of the debt counsellor questionnaire, where the answers were very similar, helped to identify the most salient behavioural belief themes. Furthermore, they discussed their evaluation of the main causes of becoming over-indebted that correlate to the official statistics. The counsellors complained about the mail-order companies with regard to marketing strategies such as enticing payment and order methods. They reported about the practice to order goods now and begin making small instalments payments several months later. The counsellors believed that this practice resulted in many consumers forgetting that they had ordered at all. Safe payment methods for both the company and the consumer like cash-on-delivery, is normally coupled with high shipping and additional handling fees. Additionally, the effective marketing of the mail-order companies was supported by a lack of financial management abilities and resources available to consumers (see e.g. neuromarketing and its link to ethical issues in Murphy, Illles, & Reiner, 2008; Foxall, 2008; Hammou, Galib, & Melloul, 2013).

Furthermore, the debt counsellors reported that their clients lacked money management and financial skills. Current research by Grinstein-Weiss, Spader, Yeo, Key, and Books Freeze (2012) regarding the relationship between parental teaching of financial management in childhood and future loan performance among a sample of low- and moderate-income households supports the evaluation of the debt counsellors. Grinstein-Weiss et al. (2012) reported advanced levels of parental financial training in childhood associated with better mortgage loan performance later in life. Specifically, lower risk of delinquency and foreclosure was reported by those who had high levels of parental teaching as opposed to individuals who had less (Grinstein-Weiss, Spader, Yeo, Key, & Books Freeze, 2012). A survey conducted by Forsa in 2012, stated that 51% of male population and 62% of the female population in Germany did not know their current interest rates for their overdraft credit (Forsa, 2012).

### **4.4.4 Formulating Items for Belief Measures**

Based on the deep knowledge and experience of the debt counsellors, the belief measures for the pilot questionnaire were prepared. This questionnaire

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included the following elements. The entire questionnaire was based on the recommendations and evaluations of Ajzen (2002, 2006), Fishbein and Ajzen (2009), Beck and Ajzen (1991), and Francis, et al. (2004) and adapted for the specifics of payment behaviour. Moreover, to ensure that the questionnaire addresses each theoretical construct and meets statistical demands for applying SEM, recent studies (in particular Knabe, 2012) that adapted a similar methodological approach were reviewed.

(1) ***Behavioural Beliefs and Outcome Evaluations*** (adapted from Ajzen, 2002)

According to the recommendation of Ajzen (2002), the questions were formulated to assess the strength of the behavioural beliefs and the evaluation of the outcome.

Sample Outcome: Better overview of financial status

**Behavioural belief strength**

My paying every invoice within the regular term of payment would allow a better overview of my financial status.

likely : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

**Outcome evaluation**

Getting a better overview of my financial status is

good : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : bad

“The belief strengths and outcome evaluations for the different accessible beliefs provide substantive information about the attitudinal considerations that guide people’s decisions to engage or not to engage in the behavior under consideration. Belief strength and outcome evaluation can also serve, however, to compute a belief composite that is assumed to determine the attitude toward the behavior (AB) in accordance with an expectancy-value model” (Ajzen, 2006, p. 9f).

(2a) ***Injunctive Normative Beliefs and Motivation to Comply*** (adapted from Ajzen, 2002)

The assessment of normative beliefs followed in an analogous manner to the measurement of behavioural beliefs: two questions, the injunctive normative

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belief and the motivation to comply, were asked with respect to each referent individual or group (Ajzen, 2002).

Sample injunctive normative referent: close friends

**Injunctive normative belief strength**

My close friends think that I should pay every invoice within the regular term of payment.

probable : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : improbable

**Motivation to comply**

When it comes to paying every invoice within the regular term of payment, how much do you want to be like your close friends?

very much : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : not at all

*(2b) Descriptive Normative Beliefs and Identification with the Referent*  
(adapted from Ajzen, 2002, 2006; Francis, et al., 2004)

With respect to each relevant salient referent, corresponding questions were formulated to assess both the strength of the descriptive normative belief and the identification with the referent individual or group (Ajzen, 2002).

Sample descriptive normative referent: parents

**Descriptive normative belief strength**

My parents will pay within the regular term of payment.

probable : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : improbable

**Identification with the referent**

When it comes to paying every invoice within the regular term of payment, how much do you want to be like your parents?

very much : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : not at all

Injunctive normative beliefs are consistent with the concept of subjective norm. "However, responses to such items are often found to have low variability because important others are generally perceived to approve of desirable behaviors and disapprove of undesirable behaviors" (Ajzen, 2006, p. 6). Ajzen

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(2002) provided a well cited and applied paper that explained how to create a questionnaire. He included descriptive normative questions and provided examples for its application. Later, he recommended to include “questions designed to capture descriptive norms, i.e., whether important others themselves perform the behavior in question” (Ajzen, 2006, p. 6). Additionally, Francis, et al. (2004) also recommended to include descriptive normative beliefs within the questionnaire and treated those questions similarly to injunctive normative beliefs (see Ravis & Sheeran, 2003 for an alternative view of regarding descriptive norms as an additional predictor in the TPB). Therefore, within this study both types of questions to assess normative beliefs were used and treated simultaneously.

**(3) Control Beliefs and Power of Control Factors** (adapted from Ajzen, 2002)

With respect to each salient control factor, corresponding questions were formulated to assess the strength of these control beliefs and the factor’s power to influence the behaviour (Francis, et al., 2004). “Examination of the average strength and power of the different control beliefs provides a picture of the factors that are viewed as facilitating or impeding performance of the behavior” (Ajzen, 2006, p. 13).

Sample control factor: fairly paid job

**Control belief strength**

Having a fairly paid job would enable me to pay within the regular term of payment.

agree : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : disagree

**Power of control factor**

Having a fairly paid job would make it

easy : \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : difficult

to pay an invoice from a mail-order company within the regular term of payment.

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The pilot questionnaire contained questions both to elicit the beliefs and items formulated to obtain direct measures of the main constructs of the theory (Ajzen, 2002). In order to achieve the best internal consistency and to construct validity for the final questionnaire, each item of each construct had to be proven for modification or deletion (Ajzen, 2002). As recommended by Ajzen (2002), the questionnaire also included measures of demographic characteristics and other relevant background factors.

### 4.5.1 Applied modified model of the Theory of planned behaviour

Based on the original theoretical model, the questionnaire was developed regarding and considering the three main constructs (see Figure 24). “A **model** is a representation of a theory. **Theory** can be thought of as a systematic set of relationships providing a consistent and comprehensive explanation of phenomena” (Hair, Black, Babin, & Anderson, 2010, p. 637). The questionnaire, systematically ordered by the theory’s underlying constructs, is in the appendix A-2.

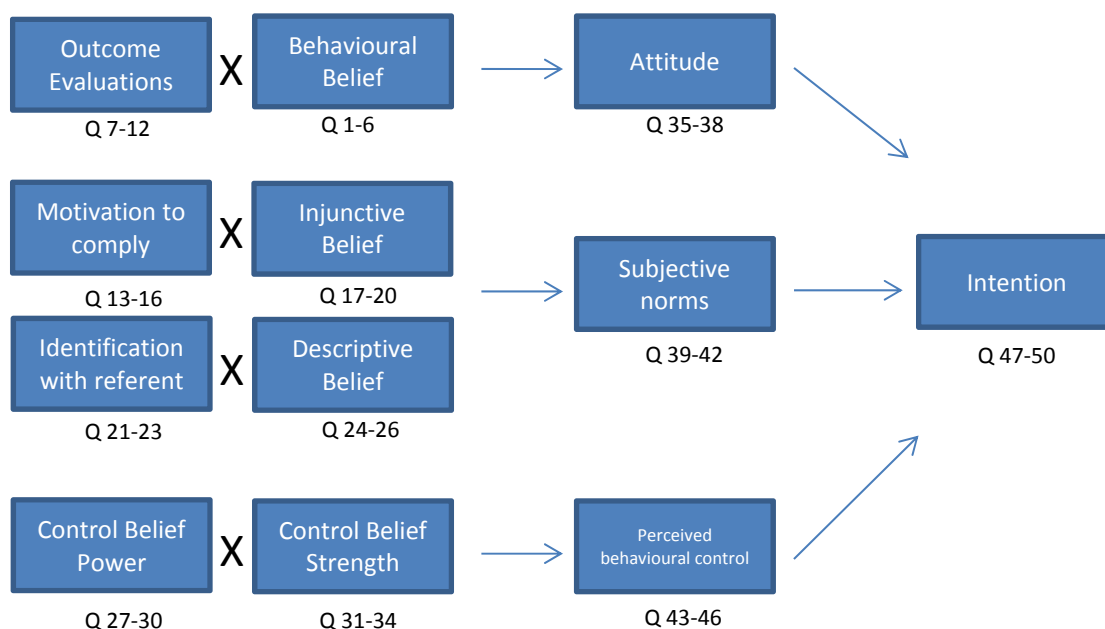


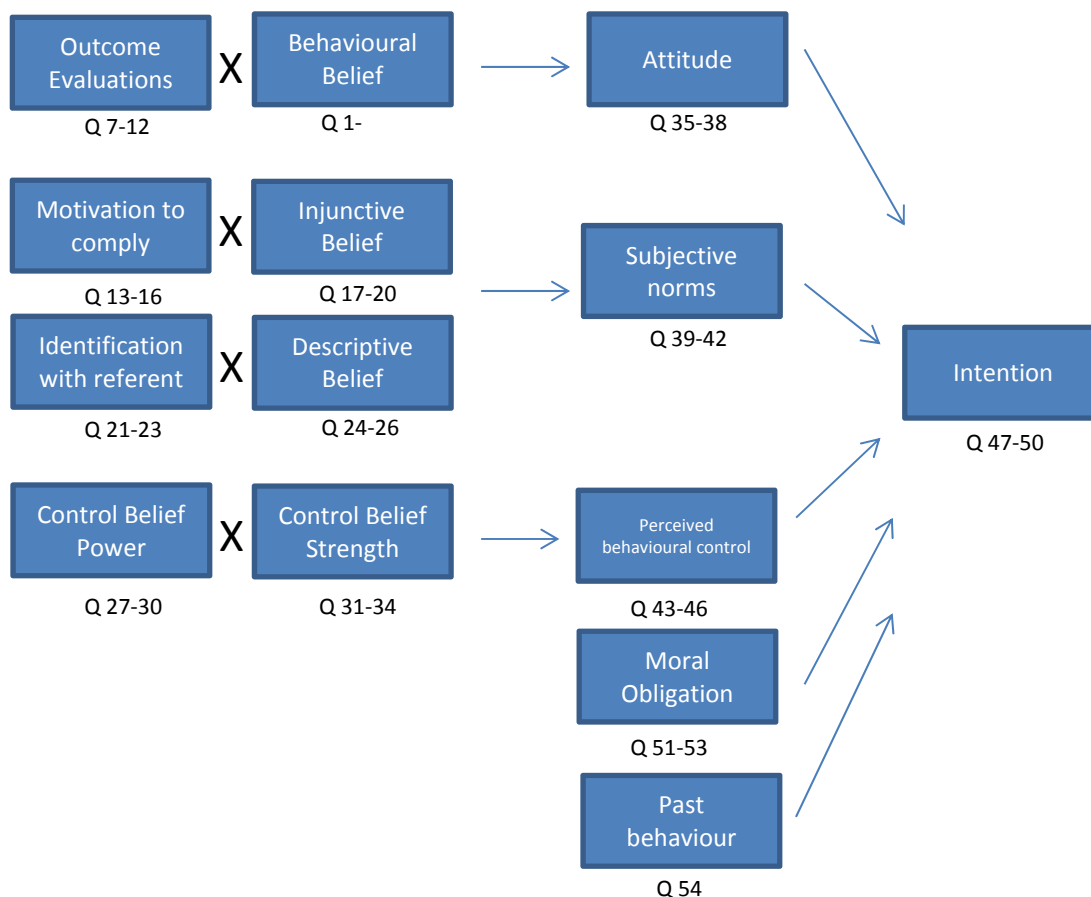
Figure 24: Applied operationalized model of the theory of planned behaviour

Source: adapted version of Ajzen (1991, 2006)

Based on the findings in the literature review, a modified model of the TPB including moral norms and past behaviour (see Figure 25) was analysed and

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compared to the above original model of the theory (Figure 24). According to the outcome of the literature review, an increase in the predictive and explanatory characteristics of the model was expected. Including moral norms in the model should lead to an increase, whereas past behaviour should be neutral as it was mediated by the existing constructs of the theory (see 3.4.4.6).



**Figure 25: Applied extended model of the theory of planned behaviour**

Source: adapted version of Ajzen (1991, 2006); Beck and Ajzen (1991)

The addition of two components to the original theory led to two propositions in accordance with the research question outlined in section 1.3.3.

**Proposition 11:** The addition of moral norms will improve the strength of the model. This will be expressed through a higher  $R^2$  of the model.

**Proposition 12:** The inclusion of past behaviour will not significantly improve the strength of the model. This will be expressed through an unchanged  $R^2$  of the model.

As recommended by Ajzen, “the different items assessing a given construct are usually separated and presented in nonsystematic order, interspersed with items for the other constructs” (Ajzen, 2006, p. 4). Based on the systematically ordered questionnaire in the appendix A-2, the pilot questionnaire was ordered in a minor non-systematic way (transformation table also see section A-2).

#### **4.5.2 Outcome of the pilot questionnaire**

The interviews with the debt counsellors supported the preparation of the pilot questionnaire. Fink (2006) stated that attitudes, emotions, quality of life, and moral values were elusive and difficult to measure and to make sure that the survey was valid and reliable, a survey that someone else had prepared and tested could be used. Again, Ajzen’s TPB and his advice on formulating the items (see Ajzen, 2002, 2006) was the fundamental basis of the questionnaire. All of the components of the theory were included. The comments of the debt counsellors were used both to formulate the beliefs and the indicators of the main construct of the theory. Reliability is “the extent to which [measurements] are repeatable and that any random influence which tends to make measurements different from occasion to occasion is a source of measurement error” (Nunnally, 1967, p. 206). To ensure that the survey was the best possible in terms of validity and reliability, the questionnaire and the structure was adapted from the guidelines of Ajzen and Francis (Ajzen, 2002, 2006; Francis, et al., 2004; Francis, Johnston, Eccles, Grimshaw, & Kane, 2004). As supposed by Francis et al. (2004), each of the predictor variables was measured using a minimum of three items and demographic questions that provided information about the sample. Moreover, a sample of the target population with correspondent demographic characteristics was asked to satisfy equal circumstances of the study (Fink & Kosecoff, 1998).

In addition, a highly experienced expert in the field of consumer over-indebtedness and CEO of a charity organization in Germany was interviewed regarding the questions in the pilot questionnaire. He both gave advice in order to address the habitual language used amongst the over-indebted clients and to verify the questions asked. His feedback on each question of the questionnaire was the first step in validating the content. Based on the input and suggestions,

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the pilot questionnaire was tested by clients of Christophorus Werk in Würzburg. The prison in Würzburg also offers debt consulting for imprisoned people, which is usual in cities having a prison. Therefore, this study was approved by the “Kriminologischer Dienst,” a federal department responsible for scientific work regarding imprisoned people. The phrasing was modified twice: “amount of orders before / after prison sentence” replaced “amount of orders.” This change was instituted because individuals in prison may use mail-order, but they are required to pay for the orders. For example, in 2013 approximately 10% of the over-indebted people asking Christophorus Werk in Würzburg for debt-advice are imprisoned people because usually after or during their prison sentence their legal process of becoming debt-free will start (data based on an interview with the CEO). In March 2011, statistics showed that 59,593 people were imprisoned in Germany and 94.4% of that population were male (Federal Ministry of Labour and Social Affairs, 2013).

In order to test the pilot questionnaire 50 debt-advising organizations in Germany were contacted via letter-post to participate in the pilot study. They received a stamped addressed envelope to return the questionnaire. Another 55 organizations in Germany received an E-mail with information about the study with the questionnaire as a pdf attachment with the request of participation and sending it back. In both ways each of the 16 states in Germany was considered. Several debt counsellors conduct the biggest online newsgroup about over-indebtedness in Germany where a registration for participation is mandatory and the participants were usually over-indebted people seeking for advice. Within this newsgroup the questionnaire was published by a debt counsellor both as a pdf for printing and electronically writeable (also regarding avoidance of multiple participations via cookies and IP-blockade).

As mentioned, the debt counsellors who had been informed concerning the study and the purpose of the questions were used as gatekeepers to submit the questionnaire to their clients. Both rural and urban clients, male and female, advice seekers and over-indebted clients were asked to participate in the study. The pilot questionnaire fulfilled the same circumstances regarding target group, situation, time, etc. as the follow-up final questionnaire. Regarding Ajzen’s



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theory to ensure the validity, different approaches were necessary to test the components. Prior to the pilot-study several pre-pilot-respondents mentioned that the questions were very similar and seemed redundant. This issue was expected as shown by the work of Knabe (2012) and therefore an explanation of the redundancy was included in the questionnaire (“While some statements may sound similar, there are subtle differences in what is being asked.” Used in the survey of Knabe (2012)).

The pilot questionnaire addressed two groups with different goals. First, receive feedback from different debt counsellors all over Germany about the questionnaire, establish a contact with different organizations and test the best way to achieve sufficient response rates. Second, to receive feedback from the target group about the questions asked and control unanticipated questions during the main study. 25 participants completed the questionnaire. Three methods were employed to elicit feedback about the questionnaire:

1. The participants were informed that they could contact the research team to discuss the study and the approach. During the pilot study, no one contacted the research team to ask any questions.
2. The questionnaire included a designated area for the respondents to provide comments about the study. Several respondents used this option to expand on their answers. Comments were also directed to the particular question.
3. Communication with involved debt counsellors was conducted to ask for mentions and comments about the questionnaire. This was the second step to validate the content of the questionnaire with the counsellors.

Throughout the process of piloting, several debt counsellors were worried about the duration of the survey. They believed that respondents might fail to complete the questionnaire due to its length. The counsellors pointed out the special psychological situation of their clients. A consulting meeting is very arduous both psychologically and physically because the clients are also nervous and need to concentrate very hard. In order to encourage respondents to complete the questionnaire, it had to be reduced to the minimum as deemed acceptable by the theory as advised of Ajzen (2002, 2006).

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Based on the feedback of the debt counsellors and the statistical results of the pilot study, the final questionnaire was modified and heavily reduced in scope of questions asked for the components of the theoretical construct. Both the outcome and the shape of the final questionnaire were discussed in-depth with the supervisory team. Due to the very small number of respondents, the statistical values gave only a suggestion about questions to be changed or deleted. To gain support regarding the changes made to the pilot study, 14 respondents were asked to complete the final questionnaire and comment on it. The following questions were asked:

- “Are any items ambiguous or difficult to answer?”
- Does the questionnaire feel too repetitive?
- Does it feel too long?
- Does it feel too superficial?
- Are there any annoying features of the wording or formatting?
- Are there inconsistent responses that might indicate that changes in response endpoints are problematic for respondents who complete the questionnaire quickly?” (Francis, et al., 2004, p. 27)

The respondents answered that they needed approximately 10-15 minutes to complete the questionnaire, which they regarded as lengthy. The debt counsellors were informed about the length and prepared the respondents in advance. The questions asked were regarded as coherent and not too superficial. However, certain questions were considered as similar and only small differences existed (e.g., questions regarding close friends and spouse). Therefore, important words in the question and the differences were highlighted by underlining or bold typing. In sum, the final questionnaire was applicable for the target population.

Section 9.3 provides a summary of the interviews conducted. Additionally, based on post-survey interviews with debt counsellors, the empirical findings of this study were discussed, reviewed and confirmed (please see chapters 8 and 9). The following sections demonstrate the process of forming the final questionnaire.

#### 4.5.2.1 Measure of Attitude towards the Behaviour

##### Direct Measure:

Cronbach's Alpha of attitude towards the behaviour in the pilot study had an acceptable value of 0.725. Two respondents did not answer the underlying questions and were therefore not considered in this analysis.

In order to improve the portion of the underlying theory, two changes were made for the final questionnaire. First, to further consider recommended experiential items (items representing how it feels to perform the behaviour), another item (pleasant – unpleasant) will be added (Ajzen, 2006). Second, the item (good – bad) will also be added to the final questionnaire in order to capture an overall evaluation as advised by Ajzen (2006).

Although results from the pilot study indicated the need to reduce the number of questions, an expansion will be added. This decision was based on two rationales: First, Ajzen's recommended items "good – bad" and "pleasant – unpleasant" were omitted from the pilot study and second, these items could be answered very fast due to fact that no further question had to be read. This extension will be appropriate for improving the outcome.

The following questions were used in the final questionnaire to direct address attitude:

##### [Direct Attitude Scale]

I consider paying every invoice within the regular term of payment

honest: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : dishonest  
 useless: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : useful  
 foolish: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : wise  
 important: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unimportant  
 bad: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : good  
 pleasant: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unpleasant

##### Scoring:

According to the recommendation of Francis, et al. (2004), each item in the questionnaire that had negatively worded endpoints on the right were recoded, so that higher numbers then always reflected a positive impact on payment

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behaviour (e.g. for 'honest – dishonest', an answer of 7 becomes score of 1; a score of 4 remains a 4).

### Indirect Measure (behavioural beliefs):

In the pilot study, two items (question 2 und 6) did not correlate with other items, which did not present a problem within the belief construct (Ajzen, 2006). However, those questions confused the respondents. Several respondents did not understand the meaning of "interest disadvantage due to pay on time" and how paying invoices on time impacted their future potential of being approved for buying on instalment plans. Both to improve internal consistency of the latter reflective construct and reduce uncertainty about the meaning, these questions were eliminated in the final questionnaire. In order to minimize the scope of the survey and to provide best level of internal consistency, question 4 was also not considered in the final questionnaire.

Furthermore, question 1 was clarified by adding the word "avoid" in the context of hassles with mail-order companies. Based on the feedback of pilot-study respondents it was possible that the over-indebted respondents had no hassles with mail-order companies at the time of the survey.

In sum, 3 corresponding questions, the minimum recommended by Ajzen (2002, 2006) and Francis, et al. (2004), will cover the belief-based measurement of attitude.

### [Behavioural Belief Strength]

1. Paying every invoice from mail-order companies within the regular term of payment would avoid / reduce hassles with mail-order companies  
likely: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: unlikely
  
2. Paying every invoice from mail-order companies within the regular term of payment would allow a better overview of my financial status  
likely: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: unlikely

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3. Paying every invoice from mail-order companies within the regular term of payment would not raise the invoice amounts due to arrears fees or court fees.

likely: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unlikely

### [Outcome Evaluations]

1. Having no / less hassles with mail-order companies is

bad: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : good

2. Getting a better overview of my financial status is

good: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : bad

3. Increase in debt due to arrears fees or court fees is

good: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : bad

### Scoring:

Items that had negatively worded endpoints on the right were again recoded. In accordance with the theory (see 3.4.4.1), for each belief in the questionnaire, the belief score was multiplied by the relevant evaluation (Francis, et al., 2004; Ajzen, 2006).

#### ***4.5.2.2 Measure of Subjective Norm***

##### **Direct Measure:**

Cronbach's Alpha of the subjective norm construct had an unacceptable value of 0.164. It could be improved if question 42 ("people like me") was not considered in the analysis (Cronbach's Alpha would be 0.583). Question 42 could be regarded as critical because respondents misunderstood the purpose of this question based on their special circumstances (over-indebted and partially imprisoned). One respondent told me that it sounds impolite "people like me" and another wrote: "I am I!" Due this feedback and the low statistical value this question was not considered in the final questionnaire.

Additional feedback addressed questions 39 to 41. Respondents stated that those questions were very similar and difficult. Based on the Feedback of the respondents, question 39 was changed slightly in phrasing: "people who are

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important to me think that I should” was modified to “people who are important to me are of the opinion that I should.” As recommended by Francis, et al. (2004) and Ajzen (2002, 2006) the remaining two questions were modified to address both descriptive norms and social pressure. Question 40 was changed in wording and covered descriptive norms indicating whether people significant to the individual themselves perform the behaviour in question (Ajzen 2006). Question 41 was based on the recommendation of addressing subjective norms by asking about expectations for others to perform a behaviour (Francis, et al., 2004).

The following pre-final test had a positive outcome regarding the following three questions covering direct measurement of subjective norms.

### **[Direct Perceived Norm Scales]**

1. Most people who are important to me are of the opinion that I should pay every invoice from mail-order companies within the regular term of payment.

likely: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: unlikely

2. Most people whose opinions I value

pay: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: pay not every invoice from mail-order companies within the regular term of payment.

3. It is expected of me to pay every invoice from mail-order companies within the regular term of payment.

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

### Scoring:

Again, the items were recoded, so that higher numbers always reflect greater social pressure to payment behaviour (Francis, et al., 2004).

**Indirect Measure (injunctive and descriptive beliefs):**

Based on the feedback of the respondents the number of questions for this part of the TPB had to be reduced. Debt counsellors were not an appropriate group for the measurement of subjective norm. 83% of the pilot group answered that their debt counsellors found it extremely important to pay invoices of mail-order companies on time. There might be a strong bias in answering this question due to the nature of their profession. Regarding the possibly ongoing process and relationship between the debt counsellor and the client it seemed to be useful to delete this question in the final questionnaire. In addition, the debt counsellor is not part of the respondents' daily life. As mentioned by debt counsellors, sometimes they have only one or few contacts because several clients solve financial difficulties on their own. Finally, this question is focused on new orders where they might intent not to consult their debt counsellors.

The pilot-questionnaire contained questions "regarding what important people think a person should do (injunctive norms) or what important people actually do (descriptive norms)" (Francis, et al., 2004, p. 19). As an outcome of the interviews from the perspective of debt counsellors, the most relevant groups or individuals for over-indebted clients are the respondent's family (parents and/or children), close friends and existing relationships with a partner or spouse. The three items of the injunctive norms in the pilot study had a Cronbach's Alpha of 0.870 whereas the item group of descriptive norms 0.846. In the pilot study these questions appeared near each other and the respondents' feedback was "asked very similar questions." Therefore, in the final questionnaire the questions were much more interspersed among the others.

Two modified questions covering injunctive belief strength remained in the final questionnaire. This decision was designed to gain insight about what the respondent should do from the perspective of their social environment. The third question will cover descriptive beliefs and address the parents. Many of the respondents have no children and were confused about "family (parents / child)" and those with children understand family as their relationship as parents to their children. Based on the interviews and feedback of the debt counsellors, and comments of respondents of the pilot study, only the parents were considered in the final questionnaire because they were of great importance.

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**[Motivation to Comply]**

1. When it comes to paying every invoice from mail-order companies within the regular term of payment, I will do what my **spouse** or **partner** thinks I should do

likely: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: unlikely

2. The opinions of my **close friends** regarding my payment behaviour with mail-order companies is important to me.

Very much: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: not at all

**[Injunctive Belief Strength]**

1. My **spouse** or **partner** think that I should pay every invoice from mail-order companies within the regular term of payment

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

2. My **close friends** are of the opinion that I should pay every invoice from mail-order companies within the regular term of payment

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

**[Identification with referent]**

1. When it comes to paying every invoice from mail-order companies within the regular term of payment, how much do you want to be like your **parents**?

not at all: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: very much

**[Descriptive Belief Strength]**

1. My **parents** pay their invoices at mail-order companies within the regular term of payment

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

Again, the following pre-final test had a positive outcome regarding tangibility and utility of the above used questions. The scoring was in accordance with the theory (see 3.4.4.2).



### 4.5.2.3 Measure of Perceived Behavioural Control

#### Direct Measure

According to the recommendation of Francis, et al. (2004), in order to measure perceived behavioural control, items were chosen that reflect people's confidence that they are capable of performing payment behaviour. Therefore it was recommended to assess the person's self-efficacy (how difficult it is to perform the behaviour) and their beliefs about the controllability of the behaviour (whether performing the behaviour is up to them and whether factors beyond their control determine their behaviour) (Francis, et al., 2004). The questions in the pilot study had a Cronbach's coefficient alpha of 0.875 with satisfactory and substantial correlations. However, these questions were not mixed well in the pilot questionnaire and again respondents stated that they sounded similar. Therefore two of the finally used questions were carefully worded, based on the recommendations of Francis, et al. (2004) and Ajzen (2006).

The following questions were used in the final questionnaire to directly address perceived behavioural control:

#### [Direct Perceived Control Scales]

1. Paying every invoice from mail-order companies within the regular term of payment is  
impossible: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : possible  
for me.
  
2. The decision to pay every invoice from mail-order companies within the regular term of payment is completely up to me.  
true: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : false
  
3. If I wanted to, I could pay every invoice from mail-order companies within the regular term of payment.  
true: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : false

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Scoring:

Again, items that had negatively worded endpoints on the right were recoded, so that higher numbers reflect greater level of control to payment behaviour (Francis, et al., 2004).

**Indirect Measure (control beliefs):**

There were several possibilities for improvement of the final questionnaire as an outcome of the pilot-study. First, the wording of question 28 and 29 suggest that “getting a financial training” and “arranging a detailed payment plan” would **enable** them to pay the invoice, which is not possible per se. Performing these actions would help to train their skills and improve their action (order) in advance, but would not impact the immediate act of paying an invoice.

Questions 31 to 34 were asked to determine the power of the control factors. However, the wording (“have a fairly paid job”, “taken part in a financial management training”, etc.) is much more a forecast (if the respondent has no job or if he has not done a financial training). Mail-order invoice values are usually relatively low; therefore, a fair paid job and/or financial training are not necessary before placing an order. Respondents may believe that having a good job and financial training are important; however, there may be a gap between accomplishing those goals and placing an order. Therefore, for the final questionnaire these questions were changed according to the suggested examples of Francis, et al. (2004).

Based on the feedback, the final questions had to differ from those of the pilot-questionnaire. The control belief strength addressed the crucial points highlighted by the debt counsellors, but had to be better verbalised. However, the power of these control factors had to be reworked due to the above mentioned time-perspective (time gap). The focus of the asked questions changed to the individual considered power instead of asking whether they had achieved the factors covering strength. That change meant having completed financial training at the time of invoice payment was less important than whether the respondents believed that financial training made it easy or difficult to arrange payment. The PBC construct is very important as it determines both the

## - The pilot study -

difference to the TRA and the applied extension of past behaviour to the model would be potentially mediated through PBC (Ajzen, 1991). Therefore, in the final questionnaire the following four questions were asked to minimize the risk of an inefficient question.

**[Control Belief Strength]**

1. Having a fairly paid job enables me to pay the invoices from mail-order companies within the regular term of payment.

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

2. A training programme on financial management would help me to plan my orders in advance and to pay the invoices from mail-order companies within the regular term of payment

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

3. Arranging a detailed payment plan would help me to plan my orders in advance and to pay the invoice from mail-order companies within the regular term of payment

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

4. Having a regular, projectable income enables me to pay the invoices from mail-order companies within the regular term of payment

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

**[Power of Control Factors]**

1. Having a fairly paid job would make it

easy: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: difficult

to pay an invoice from a mail-order company within the regular term of payment.

2. Having attended a training programme on financial management would make it

difficult: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: easy

to pay an invoice from a mail-order company within the regular term of payment.

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3. Having arranged a detailed payment plan makes it

easy: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: difficult  
to pay an invoice from a mail-order company within the regular term of  
payment.

4. Having a regular, projectable income makes it

easy: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: difficult  
to pay an invoice from a mail-order company within the regular term of  
payment.

Again, the following pre-final test had a positive outcome regarding the utility of the above used questions. The scoring was in accordance with the theory (see 3.4.4.3)

#### ***4.5.2.4 Measure of behavioural intention***

Cronbach's Alpha had an acceptable value of 0.636 which was improved to 0.790 after the deletion of question 49, which one was the only reverse scaled question out of those 4 direct measure questions. The use of negative ended questions in the pilot questionnaire was not ideal and could impact this outcome. In the final questionnaire, both the mixture and the share in negative ended questions were therefore improved. However, the phrasing of those questions was adopted from the recommendations of Ajzen (2006), Francis, et al. (2004), and Knabe (2012) and will be used in the final questionnaire. In sum, the minimum of three questions will cover the direct measure of behavioural intention.

#### **[Behavioural Intention Scale]**

1. I intend to pay every invoice from mail-order companies within the regular term of payment.

definitely do not: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: definitely

2. I have decided to pay every invoice from mail-order companies within the regular term of payment.

definitely do not: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: definitely

## - The pilot study -

3. I plan to pay every invoice from mail-order companies within the regular term of payment.

definitely do not: \_\_\_1\_\_\_: \_\_\_2\_\_\_: \_\_\_3\_\_\_: \_\_\_4\_\_\_: \_\_\_5\_\_\_: \_\_\_6\_\_\_: \_\_\_7\_\_\_: definitely

#### ***4.5.2.5 Additional questions: moral norms, past behaviour and perception of debts***

As found in the literature review, moral norms could have an impact on the outcome of the model (see 3.4.4.5). Therefore, three questions, adapted from the work of Beck and Ajzen (1991), were considered in the pilot and will be in the final questionnaire. Cronbach's Alpha of 0.439 might be a result of the small sample size of the pilot study. The wording of the questions was modified in order in to increase clarity.

#### **[Moral obligation]**

1. I would feel guilty if I did not pay every invoice from a mail-order company within the regular term of payment.

true: \_\_\_1\_\_\_: \_\_\_2\_\_\_: \_\_\_3\_\_\_: \_\_\_4\_\_\_: \_\_\_5\_\_\_: \_\_\_6\_\_\_: \_\_\_7\_\_\_: false

2. It goes against my moral principles, not paying every invoice from a mail-order company within the regular term of payment.

true: \_\_\_1\_\_\_: \_\_\_2\_\_\_: \_\_\_3\_\_\_: \_\_\_4\_\_\_: \_\_\_5\_\_\_: \_\_\_6\_\_\_: \_\_\_7\_\_\_: false

3. It would be morally wrong for me to not pay every invoice from a mail-order company within the regular term of payment.

likely: \_\_\_1\_\_\_: \_\_\_2\_\_\_: \_\_\_3\_\_\_: \_\_\_4\_\_\_: \_\_\_5\_\_\_: \_\_\_6\_\_\_: \_\_\_7\_\_\_: unlikely

This thesis intends to determine whether there was an influence of moral norms on the prediction of payment behaviour. In accordance with theory, that means the addition of moral norms to the TPB will have a positive effect on the accuracy of the outcome and the questions asked.

Moreover, past behaviour was an important aspect of the literature review and is of significant practical relevance. Therefore past behaviour was also measured in the final questionnaire.

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**[Past Behaviour]**

In the past 12 months I have paid every invoice from mail-order companies within the regular term of payment.

never: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: always

Perception of debts is another part of the questionnaire which is used to answer one of the main research questions. In order to address this question three items were formulated and used in the questionnaire.

**[Perception of debt]**

1. I think having unpaid debts of mail-order companies is normal.

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

2. In general, I think having unpaid debts has increased in Germany.

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

3. I think not paying invoices is normal in our society.

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

The next section outlines the final study which was based on the final questionnaire where its development was demonstrated in this section.

**4.6 The final study**

In order to provide both statistical reliability and ensure that respondents would complete the survey, the final questionnaire was reduced to the minimal optimal size which was covered by Ajzen's TPB (Ajzen, 1988, 1991). As mentioned previously, the items had to provide acceptable psychometric qualities. This condition meant that they needed to correlate highly with each other and that the measure had high internal consistency. Cronbach's coefficient alpha was calculated and used for this purpose (Ajzen, 2006). Only the questions with the strongest alpha (usually  $\geq 0.7$ ; Nunnally & Bernstein, 1994; Peterson, 1994) were retained in the final questionnaire. The final questionnaire was shaped based on the outcome of the focus group of debt counsellors, the pilot questionnaire, and the frequent suggestions of several experienced debt

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- The final study -

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counsellors (see section A-3 in the appendix). Once these activities were complete, the survey could be applied to the study.

The final study was conducted in September to December of 2013. More than 750 organizations and debt-advisers in Germany were asked to take part in this study by submitting the questionnaire to their clients. The contact information of debt counsellors and organizations was available through “Bundesarbeitsgemeinschaft Schuldnerberatung” and “Forum Schuldnerberatung”, both political independent associations providing information and services for over-indebted clients and organizations that are engaged in debt counselling. In July 2013, the websites <http://www.bag-sb.de> and <http://www.forum-schuldnerberatung.de> provided information for 1,336 addresses of debtor advisory offices in Germany.

In order to get the best statistical validity of the outcome and to provide a representative sample of the German population, organizations in each of the 16 federal states of Germany were contacted by postal letter and e-mail. Moreover, several organizations were also contacted by telephone to point to the survey, its potential benefits and to request participation. Acquiring the support of an organization was a big challenge. Most of those organizations were charitable institutions and their available time for clients was limited. Furthermore, they received a multitude of requests to take part in surveys or studies (bachelor, master, federal, etc.). Because the counsellors or gatekeepers were under severe time constraints and were inundated with academic requests, establishing contact with over-indebted people was highly challenging. In order to get access to organizations, an expert was asked to work as a gatekeeper for the gatekeepers. He is a well-known expert in the field of debt consulting and trained many debt counsellors all over Germany. He contacted several organizations that he had a personal relationship with and expressed support for this study and highly recommended participation. Additionally, he allowed me to use his name and organization as a reference for future correspondence with organizations requesting participation. Based on this personal contact, several organizations promised to support this study.

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In total, 74 organizations received a postal letter with 5 to 40 questionnaires and self-addressed envelopes with the request to take part in the survey. These particular organizations were selected based on the recommendations of the previously mentioned experienced debt counsellor because as they are known for both a high number of over-indebted consumers and / or are known to be in favour of participating. They were located all over Germany and represented both rural and urban clients. A total of 760 printed questionnaires were sent out via postal service to those 74 organizations.

Moreover, additional 690 organizations were contacted via E-Mail. Those were the remaining organization within the database where an E-Mail address was available. 9 organizations asked for self-addressed envelopes and printed questionnaire. Several organizations made contact via phone and indicated that they would participate and would return the questionnaires when and if they were successful in collecting data.

Some comments on the request for participation were discouraging. Nevertheless, they gave additional insight into the characteristics of the group under study. Comments were for instance:

“I have just looked at your questionnaire. It is not suitable for our clientele. We often advise clients in the debtor and consumer bankruptcy consulting with a migration background. The questionnaire is too difficult to understand and much too long. I just want to give you a short feedback that you cannot expect any returns from us” (Debt-agency from Düsseldorf).

“I am glad that you investigate the payment behaviour of over-indebted people in the German mail-order industry. However, I do not see myself in a position to assist you in the questionnaire. The questionnaire is too long and too complicated, in short, in my opinion a disgrace” (Debt-agency from Hamburg).”

“We appeal the topic of your thesis as very exciting. The questionnaire is very comprehensive. Most of our clients are unable to answer a questionnaire on this extent and with so much text without assistance” (Debt-agency from Weinheim).



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“Our clients are usually very simply structured people and about 50% of them are foreign citizens or immigrants with poor German language skills - a specific feature for the north of Munich. We ask for your understanding if no questionnaire returns from us” (Debt-agency from Munich).

However, the majority of responses of the debt counsellors were positive (e.g. “It’s great to empirically investigate the issue of over-indebtedness and mail-order industry. Many of my clients have mail order debts” (Debt-agency from Wiesbaden). Moreover, several debt counsellors contacted me via telephone or E-Mail and told me that this survey is important and they were glad to participate with their organization in this research. The most motivational factor was comments directly from the respondents (e.g. on the questionnaire) that told me that they thought this investigation is very useful. Based on their responses I got the positive feeling and impression of “finally someone is really interested about my personal situation, my feeling and thoughts.” This strengthened my belief in the validity and reliability of this study.

The same survey was conducted again in the jail of Würzburg by debt counsellors of the Christophorus Werk in Würzburg. Both during their weekly consulting and on a special information day, over-indebted imprisoned people were asked to voluntarily take part in this survey. Again to provide as much anonymity and independency the “personal” part in the questionnaire was reduced (e.g. year of birth and postal code was deleted) and the imprisoned people were advised by a second information consent sheet (also verified and approved by the ethic subcommittee of the University).

With the aim of explaining behaviour, a lot of questions were necessary to address the different constructs of the TPB. Because gatekeepers were necessary to gain access to the target group, a tremendous amount of effort was spent in collecting data. This aspect of the study was the primary challenge; more than 750 organizations offering free-of-charge debt counselling were contacted in different ways (Postal letter, telephone, E-Mail, and combinations). Obtaining the prison sample was particularly challenging because it required the mandatory approval of another committee and the

## - Summary -

prison administration had to agree to participation. Again, due to the support of the local debt counsellors in Würzburg (Christophorus-Werk), access to this important sample group was granted.

Table 20 summarizes the participation quota of the data collection process.

### Data collection Summary

Version	Contacts	Amount	Return	Usable
Printed	74 organizations	760 printed questionnaires	98	92
Printed / PDF	690 organizations	Self-print of PDF (E-Mail) or request printed copies		
Online-Forum	Debt counsellors	> 1000 Hits	12	5
Printed	Prison Würzburg	80 printed questionnaires	49	41
			<b>159</b>	<b>138</b>

**Table 20: Data collection summary**

### 4.7 Summary

Within this chapter, the research methodology was outlined and described in detail. Therefore, the research data and analysis approach was emphasized using structural equation modelling. Due to the sensitive nature of the topic, ethical aspects and requirements were also explained. The main focus of this chapter was on the preparation, construction, and analysis of the pilot questionnaire and the final questionnaire based on the TPB. Against the background of the constructs of the theory, different statistical tests were conducted to ensure the validity and significance of the final study. Interviews with experienced debt counsellors were conducted in advance to gain an in-depth understanding with particular regard to underlying beliefs.

After conducting a pilot study with 25 respondents of the sample group the results were calculated and analysed with SPSS. Equations like Cronbach's alpha supported the shape of the final questionnaire and provided statistical reliability. Following the analysis of the outcome, the main theoretical constructs and the questions for both the pilot questionnaire and final questionnaire were based on the original theory. The construct and questions were then modified

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for the behaviour under observation – payment patterns in the mail-order industry. The data gathering was really challenging and with high involvement of different debt counsellors all over Germany 159 questionnaires were completed: 49 of imprisoned and 110 of non-imprisoned people (see final respondents profile in Table 21 on page 151).

Based on the outcome of the final questionnaire, different statistical analyses with SPSS were conducted and PLS-SEM was used to test the propositions via structural equation modelling. The process and results of the data analyses as well as information about the sample population are presented in the next chapter.

## **CHAPTER 5: ANALYSIS AND RESULTS OF TPB MODEL**

The previous chapter outlined the methodological approach undertaken in this study. The extension of knowledge about behaviour is a significant concept for the mail-order industry as it explains the origin of invoice payment based on beliefs and intention, not the potential act of non-payment. Therefore the current chapter highlights the analytical part of the final study by investigation of behavioural aspects and underlying beliefs – in short, the application of the TPB and its extensions. Finally, chapter 6 summarizes the research questions and provides its results and answers, respectively. This preceding analytical chapter demonstrates in depth the statistical model validation as a crucial point for the reliability and validity of latter results.

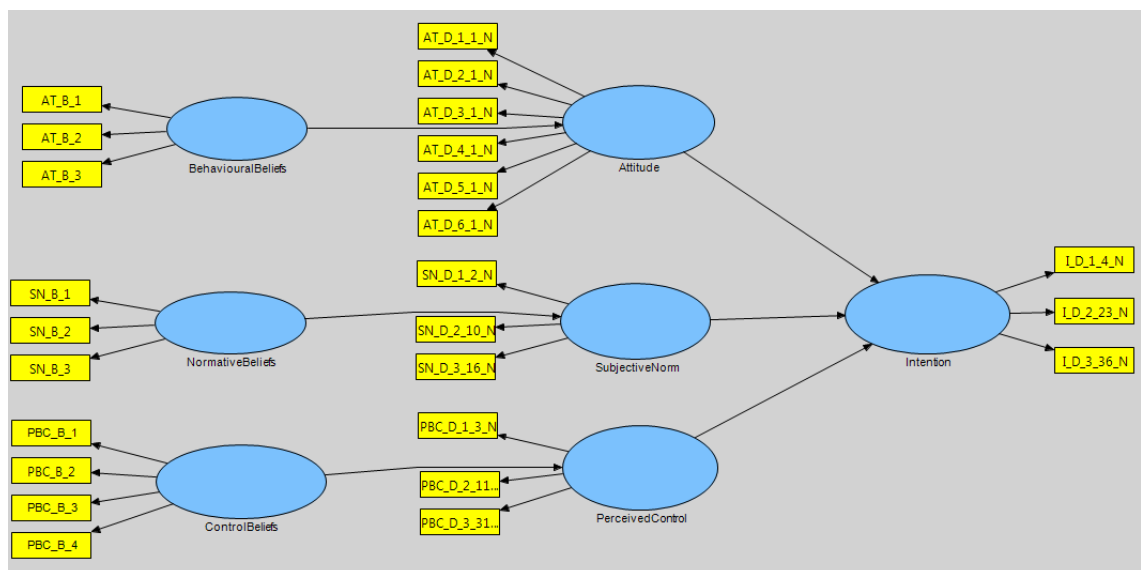
As mentioned in section 4.3.2.1, two approaches are used to estimate the relationships in a structural equation model – CB-SEM and PLS-SEM - (Hair, Black, Babin, & Anderson, 2010; Hair, Sarstedt, Pieper, & Ringle, 2012). The PLS-SEM approach makes practically no assumptions about the underlying data (in terms of data distributions, see Cassel, Hackl, & Westlund, 1999; Reinartz, Haenlein, & Henseler, 2009). PLS-SEM works efficiently with complex models (Wold, 1985) and very small sample sizes (Chin & Newsted, 1999; see also Hair, Hult, Ringle, & Sarstedt, 2014). In sum, PLS-SEM was therefore best suited for this study. In addition, PLS-SEM would also allow the computation of both formative and reflective measurement models (Diamantopoulos & Winklhofer, 2001). PLS-SEM could also manage single-item constructs well (e.g. past behaviour) with no identification problems unlike CB-SEM, where its inclusion led to model under-identification (Fuchs & Diamantopoulos, 2009). Finally, the application of PLS-SEM led to a high efficiency in parameter estimation, demonstrated by its superior statistical power against the CB-SEM approach (Hair, Hult, Ringle, & Sarstedt, 2014). “Greater statistical power means that PLS-SEM is more likely to render a specific relationship significant when it is in fact significant in the population” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 15).

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Finally, influenced by the extension of moral norms and past behaviour to the TPB (which resulted in theory development) and the expected power of explaining the variance of the endogenous constructs under the condition of an existing small sample size, PLS-SEM emerged as the superior instrument for this study. This is consistent with the findings in the meta-analysis of applying SEM of Hair, Sarstedt, Ringle, and Mena (2012). However, subsequent data analyses demonstrated that the data were non-normal distributed and the CB-SEM model had to be further rejected because of poor Goodness-of-fit-indices (see CB-SEM model estimation design and explanation of its fit-indices in the appendix A-5).

### 5.1 The theory of planned behaviour as a PLS-SEM model

The theoretical framework with its key elements and cause-effect relationships is displayed in Figure 26. The constructs were measured by multiple items and of reflective nature indicated by the arrows pointing from the construct to the indicators. The model had three exogenous latent variables (beliefs) and precedes three endogenous latent variables which operate as both independent and dependent variables. Furthermore, it has one dependent construct (intention), which is also called an endogenous latent variable (Hair, Hult, Ringle, & Sarstedt, 2014). The calculation was done using the statistical software SmartPLS (Ringle, Wende, & Will, 2005).



**Figure 26: Structural and Measurement Model**

Legend: The blue circles represent the latent, unobserved constructs of the TPB (beliefs and direct measure). The yellow boxes represent the observed indicators, measured by the questionnaire. The questions relating to the codes (e.g. AT\_B\_1) see appendix A-3.2.

As previously mentioned, there were two important groups which were covered by this survey: imprisoned and not-imprisoned people who were over-indebted. Because imprisoned individuals have limited shopping opportunities, these data were analysed separately from that of the population “people currently not in prison” and compared in a later step. People in prison are typically able to order from a mail-order company (e.g. books), but they have to prove the payment confirmation to the prison staff. As an outcome of different conversations with a debt counsellor responsible for imprisoned debtors, people in jail were not addressed differently by official statistics. On their release from prison, those individuals could both order from mail-order companies and simultaneously begin the legal procedure of becoming debt free. Therefore, regarding this group of over-indebted people is of importance for the mail-order industry, but not on the same level as not-imprisoned consumers due to their current limited circumstances. Moreover, it is important for both science and practice to know whether the payment intention of imprisoned people differs from individuals not in prison because imprisoned people are potential future consumers of the mail-order industry. As both imprisoned and not-imprisoned people received the same questions in the questionnaire, the same underlying theoretical model was used. The following analytical part captures two populations within one model of the TPB.

### **5.1.1 Missing values / suspicious response patterns / outliers**

The completed questionnaires received three checks:

1. Are there missing values?
2. Are there response patterns (e.g. marking all as 4)?
3. Are there outliers?

Following the recommendation of Hair, Hult, Ringle, and Sarstedt (2014), 14 questionnaires were more than 15% incomplete and were removed from the data file (e.g., respondents neglected to answer a whole page). Additionally, 4 questionnaires were also removed due to response patterns: they marked almost every question with 4 or answered each question with 1 respectively 7. Finally, an outlier examination using IBM SPSS (Mahalanobis distance function) was conducted where in sum 3 datasets were identified and removed. In sum 138 questionnaires could be used for the analytical part of this thesis.

Moreover, 43 answers within 138 questionnaires, which covered 42 questions, were missing. Question 29 (“referencing to own parents”) with 6 missing values had the maximum amount of missing values within the survey. The respondents commented on this question with e.g. “I have no parents anymore”. The other missing values were distributed randomly through the other questions. In sum, only 0.74% of 5,796 (42\*138) items were missing, no indicator had more than 5% of missing values. Therefore no multiple statistical imputation mechanism was conducted or a casewise deletion was applied in the analytical part. Based on the almost even distribution, in the analysis missing values were replaced by the mean value – “the most popular method of imputation” (Mohd, 2012, p. 23) - within the statistic program SmartPLS. This approach is congruent to the recommendation of Hair, Hult, Ringle, and Sarstedt (2014) and Hair, Black, Babin, and Anderson (2010).

### **5.1.2 Descriptive analysis of the sample**

As mentioned, two groups of over-indebted consumers were under observation for this study – imprisoned and not-imprisoned.

The 97 usable questionnaires of the not-imprisoned sample came from areas throughout Germany. This was the result of the chosen approach to ask more than 750 debt counsellors and organizations to participate (see section 4.6). Both the distribution of gender and age was in line with current statistics addressing over-indebtedness in Germany (e.g., Statistisches Bundesamt, 2013; Knobloch & Reifner, 2013). Current open debts by 33% of the respondents aligned with the previously mentioned 30% of over-indebted households (Knobloch & Reifner, 2013). The education level of the respondents was higher than in recent statistics (e.g. 18.6% of the respondents had no vocational training vs. 38.4% in the statistics of Statistisches Bundesamt, 2013), which was in line with the minor unemployment rate (24.7% vs. 45.0% Statistisches Bundesamt, 2013). The majority of the respondents were at an early stage in the consultation process (56.7%), which suggests that those respondents were at beginning of the legal process of concerning their debt. This circumstance was highly suitable for the background of the study because the respondents controlled how they spent money and were best able to make

## - The theory of planned behaviour as a PLS-SEM model -

their own decisions. As individuals move farther along in the legal process, their spending could be limited by e.g., a binding agreement between debt counsellor, different companies, and them. 73.2% of the respondents shopped via mail-order, which demonstrates the high relevance of over-indebtedness for the industry. In sum, the descriptive statistics showed that the 97 cases could be regarded as representative for the over-indebted population under observation.

Within the imprisoned group, 41 questionnaires were usable. In order to provide maximum anonymity, the individual background of the imprisoned respondents was not examined. However, in the jail of Würzburg the maximum period of imprisonment is about six years and common causes for imprisonment of the sample population were listed as: property offence, narcotic drug offence, and bodily harm (data based on an interview with the responsible debt counsellor in the jail of Würzburg). Connected with property offence could also be mail-order debt (48.8% of the imprisoned respondents had open mail-order debts). Most of the respondents were in the debt consulting process and their main trigger of over-indebtedness was minor income due to unemployment.

As the current environment and circumstances differed, all further analysis and statistics were presented for both groups separately (see Table 21).

### Descriptive statistics

critierion	imprisoned		not-imprisoned	
<b>Participants</b>	41		97	
Male	12	29.3%	52	53.6%
female	29	70.7%	45	46.4%
<b>current unpaid debts</b>	20	48.8%	32	33.0%
at mail-order companies				

(continue on next page)



## - The theory of planned behaviour as a PLS-SEM model -

<b>critrion</b>	<b>imprisoned</b>		<b>not-imprisoned</b>	
<b>orders at mail-order companies</b>	25	61.0%	71	73.2%
within 12 months				
1-5	20	48.8%	41	42.3%
6-10	3	7.3%	15	15.5%
11-20	2	4.9%	6	6.2%
>20	0	0.0%	9	9.3%
<b>education level</b>				
college degree	1	2.4%	21	21.6%
professional education	20	48.8%	58	59.8%
no vocational training	20	48.8%	18	18.6%
<b>Employment status</b>				
Full time	imprisoned		37	38.1%
Part time			22	22.7%
Unemployed			24	24.7%
Retired			7	7.2%
Student/at school			6	6.2%
<i>no information</i>			1	1.0%
<b>Age distribution</b>				
< 25	not asked		7	7.2%
26-39	to provide		35	36.1%
40-59	max. level		48	49.5%
>60	of anonymity		4	4.1%
<i>no information</i>			3	3.1%
<b>consulting process</b>				
debt consultation	22	53.7%	55	56.7%
insolvency consultation	12	29.3%	15	15.5%
ongoing legal process	0	0.0%	13	13.4%
<i>no information</i>	9	22.0%	14	14.4%
<b>Main cause of over-indebtedness</b>				
Unemployment	20	48.8%	22	22.7%
Separation/divorce	4	9.8%	14	14.4%
Personal business failure	1	2.4%	8	8.2%
Sickness/addiction	4	9.8%	2	2.1%
Inefficient budget management	3	7.3%	14	14.4%
Death of partner	2	4.9%	1	1.0%
Failure of real-estate financing	0	0.0%	3	3.1%
other causes	7	17.1%	27	27.8%
<i>no information</i>	0	0.0%	6	6.2%

Table 21: Respondents profile

Knowing key facts about the population as demonstrated in Table 21, the following section provides the detailed analytical approach of applying the TPB and its extension.

### **5.1.3 Data distribution and applied SEM approach**

Starting with this thesis, CB-SEM was the preferred choice because the intended statistical approach was primarily confirmatory (see e.g., Hair, Hult, Ringle, & Sarstedt, 2014) and response rates of 400 respondents were expected as effortless regarding 100,000 new private insolvencies each year. Moreover, normally distributed data was expected demonstrating the estimated ambivalence in behaviour. However, my viewpoint changed significantly during the data-gathering phase because I became aware of the extraordinary circumstances that many over-indebted people faced. Because they often waited several months for debt-advising and prepared for the session; the meetings were often highly stressful. Debt counsellors reported that almost no participants completed or returned the questionnaire when they were asked to complete the questionnaire at home. Furthermore, the theoretical constructs of the TPB, which included beliefs requires numerous questions. This condition makes participation very time-consuming (approximately 10-15 minutes), which only few people were willing to do. Therefore, only a small sample of 138 questionnaires could be used. In retrospect, I recognized how challenging it was to recruit respondents. Normal distribution was expected because I had the negative opinion that some individuals were unwilling to pay within the customary payment time-period. However, the statistical data and the contact with debt counsellors enlightened me to the myriad causes of the current debt situation. Individuals were often affected by circumstances outside of their personal sphere of influence (e.g. illness) – and future payment intention was not as narrow as expected.

Normality was tested for both groups by applying the Kolmogorov-Smirnov test in SPSS with the result that the data was not normally distributed (e.g., direct measure of attitude in Table 22, see in the appendix for each variable A-3.4 (not-imprisoned) / A-3.5 (imprisoned)). Analysis of skewness and kurtosis also indicated that the distributions could be considered not normal. Table 23

## - The theory of planned behaviour as a PLS-SEM model -

demonstrates that values are outside the range of -1 to 1 and therefore regarded as not normally distributed as recommended by Hair, Hult, Ringle, and Sarstedt (2014).

**One-Sample Kolmogorov-Smirnov Test**

		AT_D_1_1_N	AT_D_2_1_N	AT_D_3_1_N	AT_D_4_1_N	AT_D_5_1_N	AT_D_6_1_N
N		95	97	95	96	95	95
Normal Parameters <sup>a,b</sup>	Mean	6,46	6,16	5,95	6,39	6,38	5,33
	Std. Deviation	,954	1,288	1,258	1,226	1,196	1,777
Most Extreme Differences	Absolute	,418	,329	,293	,379	,393	,216
	Positive	,287	,258	,201	,308	,302	,173
	Negative	-,418	-,329	-,293	-,379	-,393	-,216
Kolmogorov-Smirnov Z		4,078	3,242	2,860	3,718	3,831	2,106
Asymp. Sig. (2-tailed)		,000	,000	,000	,000	,000	,000

a. Test distribution is Normal.

b. Calculated from data.

**Table 22: Kolmogorov-Smirnov-Test of attitude (group not-imprisoned)**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AT_D_1_1_N	95	3	7	6,46	,954	-1,730	,247	2,093	,490
AT_D_2_1_N	97	1	7	6,16	1,288	-1,687	,245	2,408	,485
AT_D_3_1_N	95	3	7	5,95	1,258	-,816	,247	-,729	,490
AT_D_4_1_N	96	1	7	6,39	1,226	-2,566	,246	6,664	,488
AT_D_5_1_N	95	1	7	6,38	1,196	-2,263	,247	5,060	,490
AT_D_6_1_N	95	1	7	5,33	1,777	-,974	,247	,154	,490
Valid N (listwise)	92								

**Table 23: Descriptive statistics of attitude (group not-imprisoned)**

Finally, the CB-SEM approach was not applicable and the appropriate alternative method, PLS-SEM using the software SmartPLS, had to be chosen. Based on the population of 41 and 97, the application of PLS-SEM possessed the best utility for both populations regarding the mentioned 10-times rule advocated by Barclay, Higgins, and Thompson (1995).

#### 5.1.4 Model estimation / PLS-SEM algorithm

The variance-based PLS-SEM algorithm was originally developed by Wold (1975, 1966) and later extended by Lohmöller (1989). "The algorithm estimates the path coefficients and other model parameters in a way that maximizes the explained variance of the dependent construct(s)" (Hair, Hult, Ringle, & Sarstedt, 2014, p. 74). The PLS-SEM algorithm estimates all unknown elements in the path model by using the known elements. The relationship between the measured indicator variables of the reflective constructs are labelled outer

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loadings ( $\lambda$ ) and the relationship between the latent variables are labelled as path coefficients ( $\beta$ ) (Hair, Hult, Ringle, & Sarstedt, 2014).

PLS-SEM, in contrary to CB-SEM, does not optimize a unique global scalar function and therefore has no global goodness-of-fit measures (Hair, Sarstedt, Pieper, & Ringle, 2012; see appendix A-5.1 for different index for goodness-of-fit within CB-SEM). This lack of a global fit index or measures is traditionally considered as a major drawback for PLS-SEM (Hair, Hult, Ringle, & Sarstedt, 2014). However, practitioners and researchers look for a goodness-of-fit-index for PLS-SEM (e.g., Tenenhaus, Esposito Vinzia, Chatelinc, & Laurob, 2005). Although Tenenhaus et al. (2005, p. 173) stated that “PLS path modeling does not optimize any global scalar function so that it naturally lacks of an index that can provide the user with a global validation of the model”, Tenenhaus et al. (2004) proposed an index which Henseler & Sarstedt (2012) challenged. Henseler & Sarstedt (2012) came to the conclusion, that the proposed goodness-of-fit index is “not suitable for model validation” (Henseler & Sarstedt, 2012, p. 565) and therefore, “researchers are advised not to use this measure” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 185). Within CB-SEM fit statistics describe and judge the discrepancy between the empirical measured and the theoretical model-implied covariance matrix (Hair, Sarstedt, Pieper, & Ringle, 2012). In contrast, PLS-SEM focuses on the discrepancy between the approximated (in the case of latent variables) or observed (in the case of manifest variables) values of the dependent variables and the values which are predicted by the model in question (Hair, Sarstedt, Pieper, & Ringle, 2012). As a consequence of missing fit-indices, researchers who applied PLS-SEM, judged the model’s quality by relying on measures indicating the model’s predictive capabilities (Hair, Hult, Ringle, & Sarstedt, 2014). More precisely, the assessment of the inner and outer model in PLS-SEM (see Figure 27) uses procedures such as bootstrapping and blindfolding and builds on a set of nonparametric evaluation criteria (Hair, Hult, Ringle, & Sarstedt, 2014). The use of formative measurement in PLS-SEM is possible but problematic as the estimation of the constructs is without error terms (Diamantopoulos, 2011; Hair, Hult, Ringle, & Sarstedt, 2014). This error-free specification of a formative measurement model is difficult to achieve as “in practice, it can be very difficult

to be certain that all possible causes on the latent variable are accounted for by the indicators” (Diamantopoulos, 2006, p. 6). The measured beliefs in this study were those mentioned by debt counsellors. Regarding in depth the items measuring the underlying belief constructs, they had several in common. For instance, spouse, friends, and family were part of the ‘near social environment’ and the broad communality was statistically obvious in correlations among the indicators (e.g. spouse and friends  $r=0.41^{***}$ ). Directly based on classical test theory and psychometrics (Nunnally & Bernstein, 1994), solely reflective indicators were used, which are seen as functions of the latent construct and changes in the underlying latent construct are reflected in changes in the indicator variables (Hair, Ringle, & Sarstedt, 2011; Hair, Hult, Ringle, & Sarstedt, 2014). This seems also appropriate as for formative indicators a “census of indicators, not a sample” (Bollen & Lennox, 1991, p. 308) would be needed.

Each structural equation model with latent constructs has two components. First, the structural model which shows the relationships (paths) between the latent constructs and typically referred to as the inner model in the PLS-SEM context. Second, the measurement models include the unidirectional predictive relationships between each latent construct and its associated observed indicator and typically referred to as outer models (Hair, Ringle, & Sarstedt, 2011).

Figure 27 demonstrates the further process of model testing and evaluation, the content of the next sections (see A-4 in the appendix for an overview of variables threshold).

- The theory of planned behaviour as a PLS-SEM model -

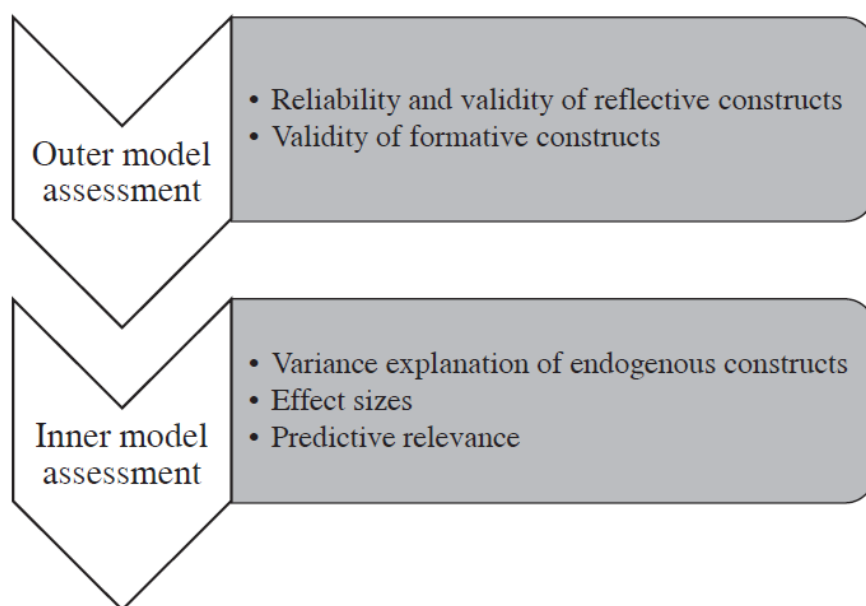


Figure 27: The two-step process of PLS Path Model Assessment

Source: Henseler, Ringle, & Sinkovics (2009, p. 298)

Table 24 outlines the evaluation criteria reviewed in the next sections.

Evaluation of the measurement model	reflective	Evaluation of the structural model
Internal consistency (composite reliability)	(composite reliability)	Coefficients of determination ( $R^2$ )
Indicator reliability		Predictive relevance ( $Q^2$ )
Convergent validity (average variance extracted)		Size and significance of path coefficients
Discriminant validity		$f^2$ effect sizes
		$q^2$ effect sizes

Table 24: Systematic evaluation of PLS-SEM results

Source: adopted from Hair, Hult, Ringle, and Sarstedt (2014, p. 97)

The indicator variables in the structural equation model typically contain some degree of measurement error. The error is present both in the latent variable scores and in the path coefficients as they are estimated by using these scores (Hair, Hult, Ringle, & Sarstedt, 2014). The result is that the unbiased, true path model relationships are frequently underestimated, while the parameters for the measurement model (i.e., the loading) are typically overestimated. This characteristic of PLS-SEM is referred to as the PLS-SEM bias: structural model relationships (inner-model) underestimated whereas measurement model (outer

## - Outer-model assessment (reflective measurement model) -

model) relationships overestimated. The bias only disappears and latent variables approach their true values when both the number of observations and the number of indicators per latent variable increase to infinity (Hair, Hult, Ringle, & Sarstedt, 2014). This characteristic is commonly described as “consistency at large” (Lohmöller, 1989). However, different studies demonstrated that the mentioned PLS-SEM bias is generally at minimal levels (see Reinartz, Haenlein, & Henseler, 2009; Ringle, Götz, Wetzels, & Wilson, 2009) and has therefore limited relevance in most empirical studies (Hair, Hult, Ringle, & Sarstedt, 2014).

## 5.2 Outer-model assessment (reflective measurement model)

Again, for both sample groups, analysis was conducted and treated separately. While the focus of this study was on the not-imprisoned model (see Figure 28), the payment intention of the imprisoned population was significant to understanding due to being latent potential over-indebted mail-order consumer (see Figure 29).

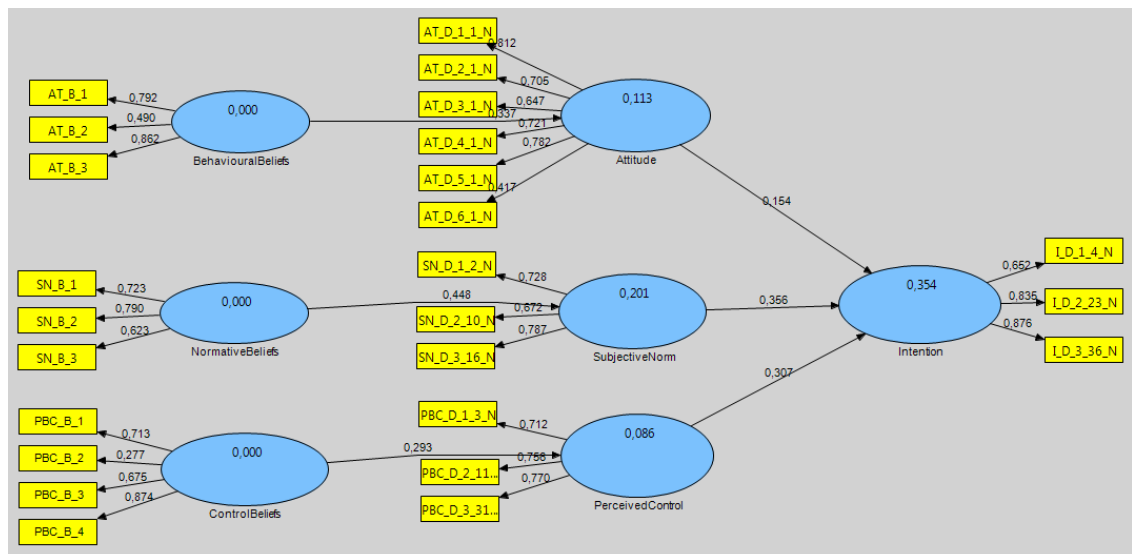


Figure 28: Outcome of the TPB PLS-SEM model (not-imprisoned)

## - Outer-model assessment (reflective measurement model) -

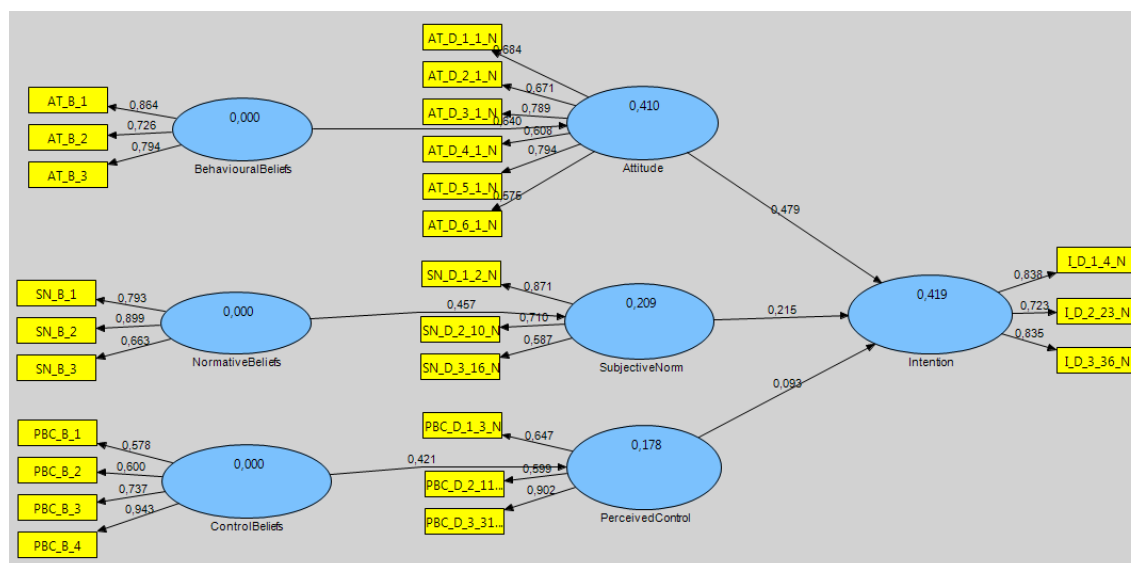


Figure 29: Outcome of the TPB PLS-SEM model (imprisoned)

These outcomes needed to be reviewed under the aspect of statistical significance. As the model contains solely reflective measurement models, reliability and validity is highly significant and had to be assessed (Hair, Ringle, & Sarstedt, 2011). The next sections cover both the analysis of the outer-model and the inner-model validity (5.3) with assessment of the predictive relevance.

### 5.2.1 Internal consistency reliability

Traditionally the internal consistency reliability is the first criterion to be evaluated (Hair, Hult, Ringle, & Sarstedt, 2014). Usually the applied criterion for measuring internal consistency is Cronbach's coefficient alpha (Cronbach, 1951), which assumes that all indicators are equally reliable (based on the intercorrelations of the observed indicator variables, i.e. all indicators have equal outer loadings on the construct) (Henseler, Ringle, & Sinkovics, 2009). Cronbach's alpha has some limitations as it is sensitive to the number of items in the scale and generally tends to underestimate the internal consistency reliability (Hair, Hult, Ringle, & Sarstedt, 2014; see also e.g., Cortina, 1993; Peterson, 1994). However, the applied PLS-SEM algorithm prioritizes the indicator according to their individual reliability, and due to mentioned limitations Cronbach's coefficient, composite reliability ( $p_c$ ) (Werts, Linn, & Jöreskog, 1974) is more appropriate to be applied as an alternative measure of internal consistency reliability (Bagozzi & Yi, 1988; as cited in Hair, Hult, Ringle, & Sarstedt, 2014).



“This type of reliability takes into account the different **outer loadings** of the indicator variables and is calculated using the following formula:

$$p_c = \frac{(\sum_i l_i)^2}{(\sum_i l_i)^2 + \sum_i var(e_i)}$$

whereby  $l_i$  symbolizes the standardized outer loading of the indicator variable  $i$  of a specific construct,  $e_i$  is the measurement error of the indicator variable  $i$ , and  $var(e_i)$  denotes the variance of the measurement error, which is defined as  $1 - l_i^2$ ” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 101f).

The composite reliability is generally interpreted as equal to Cronbach’s coefficient alpha and has values between 0 and 1 where higher values indicate a higher level of reliability (Hair, Hult, Ringle, & Sarstedt, 2014). Specifically, composite reliability values between 0.70 and 0.90 can be regarded as satisfactory in more advanced stages of research (Nunnally & Bernstein, 1994); however, in exploratory research values above 0.60 are considered acceptable (Bagozzi & Yi, 1988; Hair, Hult, Ringle, & Sarstedt, 2014). “In practice, it is common to find that at least several measurement items in an estimated model have loadings below the 0.7 threshold, particularly when new items or newly developed scales are employed” (Hulland, 1999, p. 198). A poorly worded item could lead to low reliability because of a low loading, so “in general, items with loadings of less than 0.4 (a threshold commonly used for factor analysis results) or 0.5 should be dropped” (Hulland, 1999, p. 198). That means, that indicators should be considered for removal when their outer loading is between 0.40 and 0.70 and the deleting of the indicator leads to an increase in the composite reliability (or the average variance extracted) above the suggested threshold value of 0.70 respectively 0.50 (Hair, Ringle, & Sarstedt, 2011; Hair, Hult, Ringle, & Sarstedt, 2014).

The composite reliability of the studies’ TPB-Model represented in Table 25 had acceptable values between 0.7459 (Control Beliefs) and 0.8424 (Attitude) for the not-imprisoned sample.

## - Outer-model assessment (reflective measurement model) -

	AVE	Composite Reliability	R Square	Cronbachs Alpha
Attitude	0.4801	0.8424	0.1133	0.7867
SubjectiveNorm	0.5335	0.7736	0.2006	0.5670
PerceivedControl	0.5573	0.7904	0.0861	0.6122
BehaviouralBeliefs	0.5366	0.7677		0.5597
NormativeBeliefs	0.5120	0.7572		0.5181
ControlBeliefs	0.4512	0.7459		0.6297
Intention	0.6295	0.8339	0.3539	0.7134

Table 25: Composite Reliability (model not-imprisoned)

Based on this statistics, the model could be regarded as having satisfied internal consistency reliability, but as the fields marked in yellow demonstrated, the value for the average variance extracted (AVE) could be optimized and as a consequence a better composite reliability would be possible. The statistics of the imprisoned model can be seen in Table 26.

	AVE	Composite Reliability	R Square	Cronbachs Alpha
Attitude	0.4787	0.8445	0.4102	0.7773
SubjectiveNorm	0.5356	0.7713	0.2091	0.5622
PerceivedControl	0.5302	0.7659	0.1775	0.5616
BehaviouralBeliefs	0.6345	0.8382		0.7084
NormativeBeliefs	0.6256	0.8316		0.7031
ControlBeliefs	0.5319	0.8136		0.7182
Intention	0.6409	0.8421	0.4188	0.7188

Table 26: Composite Reliability (model imprisoned)

As the internal consistency reliability was fulfilled, convergent validity and discriminant validity are also necessary for significant measurement assessment and are analysed in the next sections.

### 5.2.2 Convergent validity

Convergent validity is the extent to which a set of indicators represents the same specific underlying constructs and therefore its measure (indicators) correlates positively with alternative measures of the same construct and share a high proportion of variance (Henseler, Ringle, & Sinkovics, 2009; Hair, Hult, Ringle, & Sarstedt, 2014). Researchers consider the outer loadings of the indicators and the average variance extracted (AVE) (Fornell & Larcker, 1981) to establish convergent validity (Hair, Hult, Ringle, & Sarstedt, 2014).

## - Outer-model assessment (reflective measurement model) -

High outer loading indicate that the associated indicators on a construct have much in common as shown by the construct and is commonly called indicator reliability (Hair, Hult, Ringle, & Sarstedt, 2014). Hair et al. (2014) recommended that at a minimum, all indicators' outer loadings should be statistically significant and the (standardized) outer loadings should be 0.708 or higher. The square of this outer loading, referred to as the communality, represents how much of the variation in an item is explained by the construct (variance extracted from the item) and should therefore be at least 0.50 to be larger than the measurement error variance (Hair, Hult, Ringle, & Sarstedt, 2014).

Table 27 demonstrates the indicator's outer loading on the underlying theoretical construct of the not-imprisoned model. With the exception of PBC\_B\_2, all loadings were significant a  $p < 0.05$  respectively  $p < 0.01$ .

	Attitude	Subjective Norm	Perceived Control	Behavioural Beliefs	Normative Beliefs	Control Beliefs	Intention
AT_D_1_1_N	0.8122						
AT_D_2_1_N	0.7051						
AT_D_3_1_N	0.6468						
AT_D_4_1_N	0.7213						
AT_D_5_1_N	0.7820						
AT_D_6_1_N	0.4166						
SN_D_1_2_N		0.7280					
SN_D_2_10_N		0.6723					
SN_D_3_16_N		0.7865					
PBC_D_1_3_N			0.7122				
PBC_D_2_11_N			0.7559				
PBC_D_3_31_N			0.7702				
AT_B_1				0.7918			
AT_B_2				0.4903			
AT_B_3				0.8615			
SN_B_1					0.7234		
SN_B_2					0.7902		
SN_B_3					0.6232		
PBC_B_1						0.7132	
PBC_B_2						0.2767	
PBC_B_3						0.6750	
PBC_B_4						0.8740	
I_D_1_4_N							0.6518
I_D_2_23_N							0.8346
I_D_3_36_N							0.8759

Table 27: Indicator reliability - indicator outer loadings (model not-imprisoned)

PBC\_B\_2 not significant, AT\_D\_6\_1\_N  $p < 0.05$ , all other items  $p < 0.01$

A common criterion to assess convergent validity is the AVE which is “defined as the grand mean value of the squared loadings of the indicators associated with the construct (i.e., the sum of the squared loadings divided by the number of indicators)” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 103). Again, an AVE value of at least 0.50 is recommended, as it designates that the construct is able to explain the majority of the variance of its indicators on average (Götz, Liehr-Gobbers, & Krafft, 2010) and is therefore equivalent to the communality (Hair, Hult, Ringle, & Sarstedt, 2014).

Table 25 already showed that two constructs of the not-imprisoned model did not meet the 0.50 AVE thresholds. Furthermore, Table 27 demonstrated that different outer loadings were below 0.708 and therefore had to be tested for exclusion.

#### **Optimization of the not-imprisoned model:**

1. The item PBC\_B\_2 (“use and importance of financial management training programme”) had an outer loading of 0.2767 and was not significant. That means it was unsuitable to represent the construct “Control Beliefs” in relation to the other construct related items and was deleted. The AVE of the construct “Control Beliefs” rose from 0.4512 to 0.5763 and showed that this elimination raised the composite reliability. Regarding statistical aspects (reflective measurement), this decision was consistent. However, it demonstrated that financial skills differed from the other indicators (e.g. minor mean value and greater standard deviation), which suggested that the usefulness of financial skills training was regarded as having low value and ambivalent. Those individuals with no vocational training regarded financial training as more useful than those having a professional education (mean 26.9 vs. 20.1). This led to the conclusion that financial skills were valued more by debtors with a less education.
2. The second item deleted from the scale was AT\_D\_6\_1\_N (outer loading 0.4166) which led to an AVE of the construct Attitude of 0.5469 (composite reliability ranged from 0.8424 to 0.8572). That proved that the item “I consider paying every invoice within the regular term of payment

## - Outer-model assessment (reflective measurement model) -

pleasant | unpleasant” was unsuitable in relation to the other questions to explain the construct “Attitude” and consequently was deleted. With regard to statistics and content, this deletion was unquestionable based on the large number of respondents who marked it as “neither pleasant nor unpleasant”. After deletion, every construct had an AVE greater than 0.50 (0.5120 to 0.6295), composite reliability 0.7572 to 0.8572 and the outer loadings ranged from 0.487 (AT\_B\_2) to 0.876.

3. A deletion of AT\_B\_2 would lead to a further increase of the composite reliability (0.7671 to 0.8520) of the construct “Behavioural Beliefs”. However, it was not deleted because a) the threshold of AVE and composite reliability had been already achieved and b) the construct “Behavioural Beliefs” would exist only of two indicators which would raise the mentioned “consistency at large”-bias and c) the comparison with the sample “imprisoned” would be impeded where this indicator had a value above 0.7.
4. The path coefficient of the latent constructs ranged from 0.153 (Attitude -> Intention) to 0.448 (Normative Beliefs -> Subjective Norm). Based on the sample size, only the path coefficient of approximately 0.2 would be statistically significant. As the construct “Attitude” is comprised of five indicators, an elimination of AT\_D\_3\_N (“I consider paying every invoice within the regular term of payment foolish | wise”) with an outer loading of 0.658 had increased both the path coefficient (0.1692) and the AVE. Therefore, from a statistical perspective the deletion was wise.

In sum, the optimization of the model had advantages for both the statistical portion and content of the study. Only three indicators had to be deleted, based on aforementioned reasons. Thus, the deletion of financial management training highlighted an important aspect – the usefulness of such a training programme for debtors without higher education or professional education.

Finally, the optimized model had the following significant ( $p < 0.01$ ) outer loadings and structure (see Figure 30).

- Outer-model assessment (reflective measurement model) -

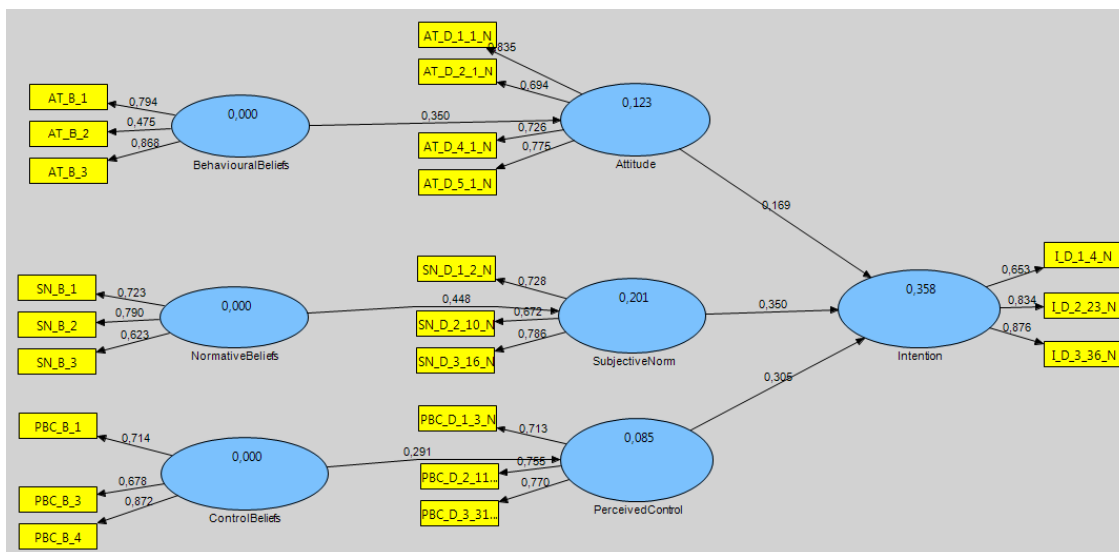


Figure 30: Outcome of the optimized TPB-Construct (model not-imprisoned)

The optimization led to an improved convergent validity with AVE greater than 0.5 and composite reliability greater than 0.7, both for the not-imprisoned model (see Table 28) and the imprisoned model (see Table 29). That meant that both internal consistency reliability and convergent validity was provided, a necessary condition for a statistical valid model offering solid statements about payment intention.

	AVE	Composite Reliability	R Square	Cronbachs Alpha
<b>Attitude</b>	0.5770	0.8445	0.1227	0.7606
<b>SubjectiveNorm</b>	0.5335	0.7736	0.2006	0.5670
<b>PerceivedControl</b>	0.5573	0.7905	0.0847	0.6122
<b>BehaviouralBeliefs</b>	0.5360	0.7663		0.5597
<b>ControlBeliefs</b>	0.5763	0.8012		0.6316
<b>NormativeBeliefs</b>	0.5120	0.7572		0.5181
<b>Intention</b>	0.6297	0.8340	0.3580	0.7134

Table 28: Composite Reliability of the optimized model (model not-imprisoned)

	AVE	Composite Reliability	R Square	Cronbachs Alpha
<b>Attitude</b>	0.5446	0.8252	0.3112	0.7151
<b>SubjectiveNorm</b>	0.5356	0.7713	0.2091	0.5622
<b>PerceivedControl</b>	0.5301	0.7657	0.1917	0.5616
<b>BehaviouralBeliefs</b>	0.6333	0.8378		0.7084
<b>ControlBeliefs</b>	0.5932	0.8084		0.6554
<b>NormativeBeliefs</b>	0.6256	0.8316		0.7031
<b>Intention</b>	0.6410	0.8421	0.3854	0.7188

Table 29: Composite Reliability of the optimized model (model imprisoned)

### 5.2.3 Discriminant validity

The complementary concept to provide internal consistency reliability is discriminant validity, which ensures that a measurement construct is truly distinct (unique) from other conceptual constructs and not represented by other constructs in the model (Henseler, Ringle, & Sinkovics, 2009; Hair, Hult, Ringle, & Sarstedt, 2014). Two measures of discriminant validity have been proposed – the cross-loadings and the Fornell–Larcker criterion (Henseler, Ringle, & Sinkovics, 2009).

One (usually more liberal) method for examining discriminant validity is the cross loadings of the indicators: the outer loading of each indicator on the associated construct is expected to be greater than all of its loading on other constructs (the cross loadings) (see Chin, 1998; Götz, Liehr-Gobbers, & Krafft, 2010; Henseler, Ringle, & Sinkovics, 2009; Hair, Hult, Ringle, & Sarstedt, 2014). “The presence of cross loadings that exceed the indicators’ outer loadings represents a discriminant validity problem” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 105).

Table 30 demonstrates discriminant validity because all outer loadings on other constructs were lower than its associated construct of the TPB.

## - Outer-model assessment (reflective measurement model) -

	Attitude	Subjective Norm	Perceived Control	Behavioural Beliefs	Normative Beliefs	Control Beliefs	Intention
AT_D_1_1_N	0.8352	0.3513	0.0817	0.3387	0.2469	0.2599	0.3301
AT_D_2_1_N	0.6943	0.1602	0.0716	0.2247	0.2396	0.2890	0.1570
AT_D_4_1_N	0.7264	0.1704	0.0860	0.2435	0.1722	0.2077	0.2073
AT_D_5_1_N	0.7751	0.1937	0.0661	0.2267	0.2201	0.1782	0.1908
SN_D_1_2_N	0.1560	0.7280	0.2840	0.2419	0.2940	0.1773	0.3316
SN_D_2_10_N	0.2257	0.6723	0.2756	0.3280	0.3489	0.1400	0.2624
SN_D_3_16_N	0.2798	0.7865	0.1566	0.2777	0.3414	0.1816	0.4688
PBC_D_1_3_N	0.1346	0.1403	0.7128	0.0891	0.1560	0.1041	0.3748
PBC_D_2_11_N	0.0934	0.3733	0.7554	0.2388	0.1395	0.3022	0.3507
PBC_D_3_31_N	-0.0252	0.1374	0.7703	0.0349	-0.0613	0.2253	0.2143
AT_B_1	0.2291	0.2628	0.0522	0.7936	0.2610	-0.0220	0.2651
AT_B_2	0.1557	0.2144	0.1602	0.4749	0.0725	0.2504	0.1185
AT_B_3	0.3415	0.3455	0.1855	0.8676	0.2102	0.3040	0.3919
SN_B_1	0.1214	0.2839	-0.0508	0.1203	0.7234	0.0368	0.1299
SN_B_2	0.1211	0.3599	0.0895	0.1813	0.7902	0.0181	0.2796
SN_B_3	0.3856	0.3090	0.2122	0.2498	0.6232	0.1793	0.2834
PBC_B_1	0.1379	0.1673	0.1523	0.1936	0.1894	0.7138	0.3394
PBC_B_3	0.3373	0.1950	0.2232	0.1804	0.0341	0.6778	0.0870
PBC_B_4	0.2048	0.1631	0.2639	0.1992	0.0588	0.8717	0.2062
I_D_1_4_N	0.2016	0.2075	0.1984	0.3142	0.2450	0.1489	0.6526
I_D_2_23_N	0.2009	0.3563	0.4517	0.2509	0.2353	0.3749	0.8343
I_D_3_36_N	0.3163	0.5428	0.3405	0.3686	0.3086	0.0955	0.8758

Table 30: Cross Loadings of the optimized TPB model (model not-imprisoned)

Within the imprisoned-model, one indicator had a cross-loading higher than on its construct (SN\_D\_3\_16\_N; “it is expected of me to pay every invoice”) on the construct “Behavioural Belief” (see Table 31). An analysis on an item basis showed that there is a high correlation (0.677<sup>\*\*\*</sup>) between SN\_D\_3\_16 and AT\_B\_3 (payment would not raise the invoice value due to arrears fees or court fees) where both indicators have high means. In this sample, imprisoned people thought that it was expected of them to pay every invoice and believed that payment would not raise the invoice value. This example expresses that correlation is not causation: the thinking of a higher face value of an invoice is not dependent on their expectation of paying on time. If it is not expected by others that they should pay, the face value increases normally. The high value of payment expectation could be influenced by their current situation of being imprisoned.



## - Outer-model assessment (reflective measurement model) -

	Attitude	Subjective Norm	Perceived Control	Behavioural Beliefs	Normative Beliefs	Control Beliefs	Intention
AT_D_1_1_N	0.7714	0.3722	0.0911	0.3766	0.2262	0.2590	0.3917
AT_D_2_1_N	0.7062	0.2304	0.3292	0.4797	0.1987	0.3512	0.3586
AT_D_4_1_N	0.6137	0.2289	0.3420	0.4414	0.1233	0.3737	0.2516
AT_D_5_1_N	0.8413	0.3255	0.1046	0.3628	0.2673	0.2153	0.5727
SN_D_1_2_N	0.2957	0.8706	0.2405	0.3123	0.4152	0.2133	0.4723
SN_D_2_10_N	0.2047	0.7102	0.1563	0.1698	0.3422	0.3023	0.2192
SN_D_3_16_N	0.3867	0.5869	0.2345	0.6699	0.2215	0.5647	0.3087
PBC_D_1_3_N	0.0639	0.0749	0.6480	0.1677	0.1777	0.1727	0.1716
PBC_D_2_11_N	0.2445	0.3460	0.5947	0.1968	0.2090	0.2030	0.2066
PBC_D_3_31_N	0.2709	0.2160	0.9037	0.2303	0.4455	0.4764	0.2338
AT_B_1	0.4344	0.3043	0.2053	0.8496	0.3541	0.5395	0.6420
AT_B_2	0.4641	0.3088	0.2395	0.7390	0.2881	0.6191	0.4171
AT_B_3	0.4275	0.5650	0.1996	0.7950	0.3224	0.5311	0.3602
SN_B_1	0.1824	0.3199	0.2921	0.3200	0.7930	0.3149	0.2905
SN_B_2	0.3254	0.4680	0.3529	0.4229	0.8988	0.5088	0.4588
SN_B_3	0.1052	0.2517	0.3797	0.1586	0.6633	0.2322	0.0650
PBC_B_1	-0.0122	0.2642	0.1731	0.3425	0.2306	0.5969	0.2535
PBC_B_3	0.4982	0.3141	0.2608	0.6156	0.5500	0.7248	0.2953
PBC_B_4	0.3534	0.4258	0.4777	0.6499	0.3527	0.9476	0.2851
I_D_1_4_N	0.5053	0.4065	0.0477	0.5765	0.2732	0.1034	0.8342
I_D_2_23_N	0.3521	0.3094	0.4099	0.5062	0.3564	0.4995	0.7238
I_D_3_36_N	0.4450	0.4194	0.2500	0.3567	0.3081	0.2716	0.8387

Table 31: Cross Loadings of the optimized TPB model (model imprisoned)

Furthermore, to analyse the discriminant problem, especially on the construct level, a second more conservative approach was used - the Fornell-Larcker-criterion, as recommended by Hair, Hult, Ringle, and Sarstedt (2014). The Fornell-Larcker criterion (Fornell & Larcker, 1981) compares the square root of the AVE values with the latent variable correlations. "Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct" (Hair, Hult, Ringle, & Sarstedt, 2014, p. 105). Table 32 demonstrates the conformance of the model with the criterion (see Table 33 for the imprisoned sample).

	Attitude	Behavioural Beliefs	Control Beliefs	Intention	Normative Beliefs	Perceived Control	Subjective Norm
Attitude	0.7596						
Behavioural Beliefs	0.3503	0.7321					
Control Beliefs	0.3067	0.2496	0.7591				
Intention	0.3075	0.3859	0.2561	0.7935			
Normative Beliefs	0.2890	0.2588	0.1061	0.3299	0.7155		
Perceived Control	0.1006	0.1816	0.2911	0.4319	0.1221	0.7465	
Subjective Norm	0.3075	0.3833	0.2286	0.4978	0.4479	0.3140	0.7304

Table 32: Fornell-Larcker Criterion of the TPB Model (model not-imprisoned)

Legend: Correlation between the constructs in the lower left triangle; the square root of the AVE on the diagonal (yellow)

## - Outer-model assessment (reflective measurement model) -

	Attitude	Behavioural Beliefs	Control Beliefs	Intention	Normative Beliefs	Perceived Control	Subjective Norm
<b>Attitude</b>	0.7380						
<b>BehaviouralBeliefs</b>	0.5579	0.7958					
<b>ControlBeliefs</b>	0.3981	0.7118	0.7702				
<b>Intention</b>	0.5471	0.5955	0.3451	0.8006			
<b>NormativeBeliefs</b>	0.2819	0.4044	0.4723	0.3851	0.7909		
<b>PerceivedControl</b>	0.2843	0.2716	0.4378	0.2785	0.4210	0.7281	
<b>SubjectiveNorm</b>	0.3931	0.4915	0.4443	0.4764	0.4573	0.2872	0.7318

Table 33: Fornell-Larcker Criterion of the TPB Model (model imprisoned)

Legend: Correlation between the constructs in the lower left triangle; the square root of the AVE on the diagonal (yellow)

In sum the measurement model for both the not-imprisoned (Table 34) and imprisoned (Table 35) population was assessed as statistically valid.

Latent variable	Indicator	Loadings	Indicator Reliability	Composite Reliability	AVE	Discriminant Validity
Attitude	AT_D_1_1_N	0.8352	0.6976	0.8445	0.5770	Yes
	AT_D_2_1_N	0.6943	0.4821			
	AT_D_4_1_N	0.7264	0.5277			
	AT_D_5_1_N	0.7751	0.6008			
Subjective Norm	SN_D_1_2_N	0.7280	0.5300	0.7736	0.5335	Yes
	SN_D_2_10_N	0.6723	0.4520			
	SN_D_3_16_N	0.7865	0.6186			
Perceived Control	PBC_D_1_3_N	0.7128	0.5081	0.7905	0.5573	Yes
	PBC_D_2_11_N	0.7554	0.5706			
	PBC_D_3_31_N	0.7703	0.5934			
Behavioural Beliefs	AT_B_1	0.7936	0.6298	0.7663	0.5360	Yes
	AT_B_2	0.4749	0.2255			
	AT_B_3	0.8676	0.7527			
Normative Beliefs	SN_B_1	0.7234	0.5233	0.8012	0.5120	Yes
	SN_B_2	0.7902	0.6244			
	SN_B_3	0.6232	0.3884			
Control Beliefs	PBC_B_1	0.7138	0.5095	0.7572	0.5763	Yes
	PBC_B_3	0.6778	0.4594			
	PBC_B_4	0.8717	0.7599			
Intention	I_D_1_4_N	0.6526	0.4259	0.8340	0.6297	Yes
	I_D_2_23_N	0.8343	0.6961			
	I_D_3_36_N	0.8758	0.7670			

Table 34: Results summary for the reflective TPB model (model not-imprisoned)

## - Inner-model assessment (predictive relevance of structural model) -

Latent variable	Indicator	Loadings	Indicator Reliability	Composite Reliability	AVE	Discriminant Validity
Attitude	AT_D_1_1_N	0.7714	0.5951	0.8252	0.5446	Yes
	AT_D_2_1_N	0.7062	0.4987			
	AT_D_4_1_N	0.6137	0.3766			
	AT_D_5_1_N	0.8413	0.7078			
Subjective Norm	SN_D_1_2_N	0.8706	0.7579	0.7713	0.5356	Yes
	SN_D_2_10_N	0.7102	0.5044			
	SN_D_3_16_N	0.5869	0.3445			
Perceived Control	PBC_D_1_3_N	0.6480	0.4199	0.7657	0.5301	Yes
	PBC_D_2_11_N	0.5947	0.3537			
	PBC_D_3_31_N	0.9037	0.8167			
Behavioural Beliefs	AT_B_1	0.8496	0.7218	0.8378	0.6333	Yes
	AT_B_2	0.7390	0.5461			
	AT_B_3	0.7950	0.6320			
Normative Beliefs	SN_B_1	0.7930	0.6288	0.8316	0.6256	Yes
	SN_B_2	0.8988	0.8078			
	SN_B_3	0.6633	0.4400			
Control Beliefs	PBC_B_1	0.5969	0.3563	0.8084	0.5932	Yes
	PBC_B_3	0.7248	0.5253			
	PBC_B_4	0.9476	0.8979			
Intention	I_D_1_4_N	0.8342	0.6959	0.8421	0.6410	Yes
	I_D_2_23_N	0.7238	0.5239			
	I_D_3_36_N	0.8387	0.7034			

Table 35: Results summary for the reflective TPB model (model imprisoned)

After the analyses of the outer-model which demonstrated a statistically valid model both for the imprisoned and not-imprisoned population, the following section reviews the inner-model assessment of the structural equation model.

### 5.3 Inner-model assessment (predictive relevance of structural model)

The construct measures were reliable and valid as they fulfilled all of the statistical criteria. The following section focuses on the assessment of the structural model and examines the model's predictive capabilities and the relationships between the constructs. It explains how well the empirical data supported the underlying theory.

#### 5.3.1 Coefficient of Determination

The coefficient of determination ( $R^2$ ) is the essential criterion to evaluate the structural model (Henseler, Ringle, & Sinkovics, 2009). "This coefficient is a measure of the model's predictive accuracy and is calculated as the squared

correlation between a specific endogenous construct's actual and predicted values" (Hair, Hult, Ringle, & Sarstedt, 2014, p. 174). In PLS-SEM  $R^2$ , values of 0.19, 0.33, and 0.67 are respectively described as weak, moderate, and substantial (Chin, 1998). Where an endogenous latent variable is explained by only a few exogenous latent variables, as it is in this study, 'moderate'  $R^2$  may be acceptable (Henseler, Ringle, & Sinkovics, 2009).

The optimized model had a  $R^2$  of 0.3580 (not-imprisoned) respectively 0.3854 (imprisoned) of intention towards the payment behaviour. Based on the outcome of the meta-analysis of Armitage and Conner (2001), this can be described almost "high" in the discipline / environment of consumer behaviour (see also Hair, Hult, Ringle, & Sarstedt, 2014). In this meta-analysis the average  $R^2$  for intention was 0.39 (details for each theoretical component see Table 36).

Relationship	N of tests	$R^a$	$R^2$	Fail-safe N	$\chi^2$
Multiple correlation (BI + PBC) with behaviour	63	.52	.27	65,347	648***
BI-behaviour correlation	48	.47	.22	26,235	396***
PBC-behaviour correlation	60	.37	.13	27,498	677***
% variance added by PBC to behaviour	66	.14	.02	3815	285***
Multiple correlation (ATT + SN + PBC) with BI	154	.63	.39	986,974	3231***
ATT-BI correlation	115	.49	.24	326,497	1050***
SN-BI correlation	137	.34	.12	201,774	1167***
PBC-BI correlation	144	.43	.18	378,681	2224***
% variance added by PBC to BI	136	.24	.06	89,753	1086***
Behavioural belief-ATT correlation	42	.50	.25	34,201	413***
Normative belief-SN correlation	34	.50	.25	20,794	451***
Control belief-PBC correlation	18	.52	.27	6174	269***

\*\*\* $p < .001$ .

Note. <sup>a</sup>Weighted by sample size; BI= behavioural intention; PBC= perceived behavioural control; ATT = attitude; SN = subjective norm.

**Table 36: Average component relationships for all tests of the TPB**

Source: Armitage and Conner (2001, p. 481)

Regarding the main constructs, Subjective Norm had a  $R^2$  of 0.2006, Attitude 0.1227 and Perceived behavioural control 0.0847 in the not-imprisoned sample. That demonstrates, that the belief constructs had weak quality characteristics or were essentially unable to explain the endogenous latent variables Subjective Norms, Attitude and especially Perceived behavioural control.

The  $R^2$  and the contribution of the theory's main constructs were reviewed and outlined in the next sections.

### 5.3.2 Effect size $f^2$

Additionally to the evaluation of the  $R^2$  values of each endogenous construct, one can evaluate Cohen's effect size  $f^2$  (Cohen J. , 1988). The effect size  $f^2$  is the evaluation of the change in the  $R^2$ , when a specified exogenous construct is omitted from the model and illustrates whether the omitted construct has a substantive impact on the endogenous constructs (Hair, Hult, Ringle, & Sarstedt, 2014). This was of great interest regarding the superiority of the TPB or TRA.

"The effect size can be calculated as

$$f^2 = \frac{R_{included}^2 - R_{excluded}^2}{1 - R_{included}^2}$$

where  $R_{included}^2$  and  $R_{excluded}^2$  are the  $R^2$  values of the endogenous latent variable when a selected exogenous latent variable is included or excluded from the model" (Hair, Hult, Ringle, & Sarstedt, 2014, p. 177).

According to Cohen J. (1988), for assessing effect size  $f^2$ , values of 0.02, 0.15, and 0.35 signify small, medium, and large effects of the exogenous latent variable (Hair, Hult, Ringle, & Sarstedt, 2014).

Table 37 demonstrates the effect size of the main constructs within the not-imprisoned model.

	Intention	
	$f^2$ effect	$f^2$ effect
Attitude	0.0363	small
Perceived Control	0.1139	small
Subjective Norm	0.1578	medium

Table 37:  $f^2$  effect of the TPB model (model not-imprisoned)

Dropping Attitude and its underlying beliefs would decrease the variance explained in intention toward payment on time to  $R^2 = 0.3347$  ( $f^2 = 0.0363$ ); therefore, it had minimal effect. The other construct present in the TRA, subjective norm, had a medium effect. An exclusion of subjective norm would

lead to a decreased  $R^2$  of 0.2567, which negative consequence was represented in the medium  $f^2$  of 0.1578. PBC, the addition to the TRA, had a small to medium effect on the endogenous construct (increased  $R^2$  from 0.2849 to 0.3580 with  $f^2=0.1139$ ). This implies that the extension to the TPB improved prediction of payment intention and was superior to the TRA. Neglecting PBC and relying on simpler predicting models may lead to payment behaviour models that are incomplete and potentially misleading (see Pavlou & Fygenson, 2006, for e-commerce adoption using the TPB).

In contrast, Table 38 demonstrates that the extension in the imprisoned model had no impact on payment intention. This is in line with the explanation in the previous section which focused on the unique environment of imprisoned individuals.

	Intention	
	$f^2$ effect	$f^2$ effect
Attitude	0.2130	medium
Perceived Control	0.0042	no
Subjective Norm	0.1137	small

Table 38:  $f^2$  effect of the TPB model (model imprisoned)

### 5.3.3 Predictive Relevance $Q^2$

Another assessment of the inner model is the measure of predictive significance by examines Stone-Geisser's  $Q^2$  value (Stone, 1974; Geisser, 1974; as cited in Henseler, Ringle, & Sinkovics, 2009). Additionally, to the magnitude of the  $R^2$  values as a criterion of predictive accuracy (Hair, Hult, Ringle, & Sarstedt, 2014) is  $Q^2$  an important indicator to confirm the model's predictive relevance (Fomell & Cha, 1994; Götz, Liehr-Gobbers, & Krafft, 2010). The  $Q^2$  value is obtained by using the blindfolding procedure where data points of a particular construct block are omitted and cross-validated using the appraisals obtained from the remaining data points (Chin, 1998, 2010a; Henseler, Ringle, & Sinkovics, 2009; Tenenhaus, Esposito Vinzia, Chatelinc, & Laurob, 2005). In sum, the "Stone-Geisser criterion postulates that the model must be able to provide a prediction of the endogenous latent variable's indicators" (Henseler, Ringle, & Sinkovics, 2009, p. 305). If the  $Q^2$  value for a certain endogenous construct is larger than 0

it suggests predictive relevance, values of 0 and below indicate absence of predictive relevance (Hair, Hult, Ringle, & Sarstedt, 2014).

Both the model for non-imprisoned people (Table 39) and the model for imprisoned people (Table 40) had predictive relevance for the endogenous latent variables as demonstrated by the correspondent positive  $Q^2$  values.

Construct	$Q^2$
Attitude	0.0672
Subjective Norm	0.1089
Perceived Control	0.0499

Table 39:  $Q^2$  values of the TPB model (model not-imprisoned)

Construct	$Q^2$
Attitude	0.1714
Subjective Norm	0.1057
Perceived Control	0.1103

Table 40:  $Q^2$  values of the TPB model (model imprisoned)

#### 5.3.4 Effect size $q^2$

Stone-Geisser's  $Q^2$  represents a measure to confirm how well the path model can predict the originally observed values (Hair, Hult, Ringle, & Sarstedt, 2014). In analogy to the effect size  $f^2$  approach for assessing  $R^2$  values, the effect size  $q^2$  demonstrates the relative impact of predictive relevance (Henseler, Ringle, & Sinkovics, 2009). The effect size  $q^2$  is defined as follows (Hair, Hult, Ringle, & Sarstedt, 2014, p. 183):

$$q^2 = \frac{Q_{included}^2 - Q_{excluded}^2}{1 - Q_{included}^2}$$

According to the  $f^2$  interpretation, values of 0.02, 0.15, and 0.35 reveal that an exogenous construct has a small, medium, or large predictive relevance for an endogenous construct under evaluation (Hair, Hult, Ringle, & Sarstedt, 2014).

Table 41 represents the  $q^2$  effect on the not-imprisoned model.

## - Inner-model assessment (predictive relevance of structural model) -

	Intention	
	q <sup>2</sup> effect	q <sup>2</sup> effect
Attitude	0.0114	<small
PerceivedControl	0.0461	small
SubjectiveNorm	0.0454	small

Table 41: q<sup>2</sup> effect of the TPB model (model not-imprisoned)

Perceived behavioural control, the construct added to the TRA, and Subjective Norm had a small relevance on the endogenous construct. This implies that the extension to the TPB had an improvement in the relevance of payment intention. However, Attitude is of non-predictive relevance for payment intention of over-indebted consumers.

In addition to the above mentioned f<sup>2</sup> effect, Table 42 demonstrates that the extension had little to no relevance on payment intention for imprisoned people. Questions regarding the perceived behavioural control like having a job, having conducted a financial management training, having a continuous income, etc. did not influence the quality of the outcome.

	Intention	
	q <sup>2</sup> effect	q <sup>2</sup> effect
Attitude	0.0742	small
PerceivedControl	-0.0151	<small
SubjectiveNorm	0.0200	small

Table 42: q<sup>2</sup> effect of the TPB model (model imprisoned)

In sum, both the not-imprisoned and imprisoned model provided statistical support for both the inner-model and outer-model. This showed that the constructs and the whole theoretical model under consideration (TPB) were reliable and valid.

### 5.3.5 Structural model path coefficients

The path coefficients represent the hypothesized relationships among the constructs and have standardized values between -1 and 1 where coefficients close to +1 represent strong positive relationship and -1 strong negative relationship (Hair, Hult, Ringle, & Sarstedt, 2014). "Whether a coefficient is



significant ultimately depends on its standard error that is obtained by means of bootstrapping” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 171).

PLS-SEM does not assume the data are normally distributed; therefore, it relies on a nonparametric bootstrap procedure (see e.g., Davison & Hinkley, 1997; Efron & Tibshirani, 1986; Efron, 1981) to test coefficients for their significance (Hair, Hult, Ringle, & Sarstedt, 2014). In bootstrapping, a resampling method developed by Efron (1979), a large number of subsamples – the bootstrap samples - are randomly selected for replacement of the original sample to generate other data sets (Kline, 2011). “In general, the bootstrap technique provides an estimate of the shape, spread, and bias of the sampling distribution of a specific statistic” (Henseler, Ringle, & Sinkovics, 2009, p. 305). A minimum of 5,000 bootstrap samples was recommended (Hair, Ringle, & Sarstedt, 2011) and conducted with the no sign change option, the most conservative approach in order to guarantee high significance (see Hair, Hult, Ringle, & Sarstedt, 2014). The estimated coefficients form a bootstrap distribution allows for determining the standard error and the standard deviation of the estimated coefficients (Hair, Hult, Ringle, & Sarstedt, 2014). When the size of the resulting empirical t-value (see Chin, 1998, for the test statistic) is above 1.96, the path coefficient is significantly different from zero at a significance level of 5%, above 2.57 for a significance level of 1% and above 1.65 for 10% respectively (Hair, Hult, Ringle, & Sarstedt, 2014).

Conducting bootstrapping with 5,000 samples for the not-imprisoned model led to path coefficients between 0.1692 and 0.4479 (see Table 43), statistically significant  $p < .01$  (Attitude -> Intention  $p < 0.1$ ).

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
<b>Attitude -&gt; Intention*</b>	0.1692	0.1789	0.0935	0.0935	1.8090
<b>BehaviouralBeliefs -&gt; Attitude***</b>	0.3503	0.3914	0.0988	0.0988	3.5451
<b>ControlBeliefs -&gt; PerceivedControl***</b>	0.2911	0.3246	0.0996	0.0996	2.9217
<b>NormativeBeliefs -&gt; SubjectiveNorm***</b>	0.4479	0.4657	0.0828	0.0828	5.4120
<b>PerceivedControl -&gt; Intention***</b>	0.3050	0.3167	0.0910	0.0910	3.3526
<b>SubjectiveNorm -&gt; Intention***</b>	0.3500	0.3495	0.1069	0.1069	3.2727

**Table 43: Bootstrapping of the TPB model (not-imprisoned)**

**Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant**

## - Inner-model assessment (predictive relevance of structural model) -

This indicated that for the not-imprisoned population, subjective norm was the most important and primary motivation for positive payment intention, followed by perceived behavioural control and attitude towards the behaviour.

Table 44 shows the total effect of beliefs via the mediating constructs on payment intention. The construct Normative Beliefs (path coefficient 0.1567 at 5% significance level) had the strongest effect on intention compared to Behavioural Beliefs (0.0593 not significant) and Control Beliefs (0.0888 at 5% significance level).

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
Attitude -> Intention*	0.1692	0.1789	0.0935	0.0935	1.8090
BehaviouralBeliefs -> Attitude***	0.3503	0.3914	0.0988	0.0988	3.5451
BehaviouralBeliefs -> Intention <sup>ns</sup>	0.0593	0.0716	0.0450	0.0450	1.3168
ControlBeliefs -> Intention**	0.0888	0.1024	0.0435	0.0435	2.0413
ControlBeliefs -> PerceivedControl***	0.2911	0.3246	0.0996	0.0996	2.9217
NormativeBeliefs -> Intention**	0.1567	0.1646	0.0627	0.0627	2.4983
NormativeBeliefs -> SubjectiveNorm***	0.4479	0.4657	0.0828	0.0828	5.4120
PerceivedControl -> Intention***	0.3050	0.3167	0.0910	0.0910	3.3526
SubjectiveNorm -> Intention***	0.3500	0.3495	0.1069	0.1069	3.2727

Table 44: Total effects of the TPB model (model not-imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

For comparison, the imprisoned model had the following outcome of the bootstrapping process with as well 5,000 samples (see Table 45).

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
Attitude -> Intention**	0.4097	0.4445	0.1762	0.1762	2.3260
BehaviouralBeliefs -> Attitude***	0.5579	0.5914	0.1166	0.1166	4.7857
ControlBeliefs -> PerceivedControl***	0.4378	0.4890	0.1609	0.1609	2.7205
NormativeBeliefs -> SubjectiveNorm***	0.4573	0.5048	0.0878	0.0878	5.2071
PerceivedControl -> Intention <sup>ns</sup>	0.0779	0.1140	0.1758	0.1758	0.4431
SubjectiveNorm -> Intention <sup>ns</sup>	0.2930	0.2863	0.1830	0.1830	1.6010

Table 45: Bootstrapping of the TPB model (model imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

For the imprisoned population, attitude was the most important and primary motivation for (positive) payment intention, followed by subjective norm (slightly not significant at  $p < 0.1$  level) and perceived behavioural control with only a path

coefficient of 0.0779 (not significant), in contrast to the population of not-imprisoned people.

Table 46 shows the moderate influence of behavioural beliefs on intention (0.2286, significance  $p < 0.10$ ). Both normative beliefs (0.1340) and control beliefs (0.0341) were not significant at a  $p < 0.10$  level.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
<b>Attitude -&gt; Intention**</b>	0.4097	0.4445	0.1762	0.1762	2.3260
<b>BehaviouralBeliefs -&gt; Attitude***</b>	0.5579	0.5914	0.1166	0.1166	4.7857
<b>BehaviouralBeliefs -&gt; Intention*</b>	0.2286	0.2671	0.1277	0.1277	1.7894
<b>ControlBeliefs -&gt; Intention<sup>ns</sup></b>	0.0341	0.0554	0.0944	0.0944	0.3614
<b>ControlBeliefs -&gt; PerceivedControl***</b>	0.4378	0.4890	0.1609	0.1609	2.7205
<b>NormativeBeliefs -&gt; Intention<sup>ns</sup></b>	0.1340	0.1489	0.1041	0.1041	1.2864
<b>NormativeBeliefs -&gt; SubjectiveNorm***</b>	0.4573	0.5048	0.0878	0.0878	5.2071
<b>PerceivedControl -&gt; Intention<sup>ns</sup></b>	0.0779	0.1140	0.1758	0.1758	0.4431
<b>SubjectiveNorm -&gt; Intention<sup>ns</sup></b>	0.2930	0.2863	0.1830	0.1830	1.6010

**Table 46: Total effects of the TPB model (model imprisoned)**

**Significance: \*\*\* < 0.01, \*\* < 0.05, \* < 0.1; ns = not significant**

The attitudinal beliefs of the imprisoned group had an important influence on Attitude (path coefficient 0.5579 vs. 0.3503 of the not-imprisoned group) resulting in a  $R^2$  in the endogenous construct Attitude of 0.311 vs. 0.123 (not-imprisoned). That means that the measured beliefs explain much more of the variance in the Attitude construct. In other words, the reduction and prevention of arrears fees and hassle with mail-order companies and having a better financial overview had a greater influence on Attitude compared to the not-imprisoned group. The total effects of the behavioural beliefs on intention were statistically significant with a path coefficient of 0.2286 (as demonstrated in Table 46) whereas within the not-imprisoned group the beliefs had no statistical valid influence on intention. The normative beliefs between the two groups were very similar (path coefficient 0.4573\*\*\* vs. 0.4479\*\*\* not-imprisoned). The Subjective Norm construct showed a difference between the groups regarding its significance, but little in its path coefficient (0.2930 vs. 0.3500 not-imprisoned). As mentioned, for the imprisoned model the path of subjective-norm was slightly not significant ( $p = 0.1172$ ; two-tailed) using the conservative “no sign change” bootstrapping option. As supposed by Hair, Hult, Ringle, & Sarstedt (2014), the

“individual sign change” bootstrapping approach could be applied in a second less conservative phase. For the imprisoned group this approach led to a t-value of 1.8024 resulting in a p-value of 0.079 and therefore significant at a 10% level. That meant that the not-imprisoned group did not differ to the imprisoned group (which will be confirmed in section 5.5.1) regarding the Subjective Norm construct. In other words, subjective norms were also of importance for the payment intention for the imprisoned group. Regarding the last main construct of the TPB, perceived behavioural control, the underlying belief construct for the imprisoned group had greater influence on perceived behavioural control (path coefficient 0.4378 vs. 0.2911 for not-imprisoned). In particular, belief PBC\_B\_4 (“having a regular, projectable income”) exhibited the highest influence. However, the path of perceived control towards intention was not significant for the imprisoned model. Regarding the items directly measuring PBC, results suggested that the decision of paying further invoices is completely up to the individual (PBC\_D\_2\_11\_N), but either payment is possible / impossible and could / could not pay if they wanted. In sum, the outcome seems consistent regarding the current circumstances of imprisoned respondents.

#### **5.4 Importance-Performance matrix analysis**

The extraction of latent variable scores is a crucial detail of the PLS-SEM method. The extension of basis PLS-SEM outcomes using those latent variables scores provides an Importance-Performance Matrix Analysis (IPMA) (Hair, Hult, Ringle, & Sarstedt, 2014). This useful extension adds a supplementary dimension to the path model relationships analysis by considering the latent variables’ average values (Hair, Hult, Ringle, & Sarstedt, 2014; see also Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Hock, Ringle, & Sarstedt, 2010; Kristensen, Martensen, & Gronholdt, 2000; Slack, 1994; Völckner, Sattler, Hennig-Thurau, & Ringle, 2010). IPMA contrasts the structural path model total effects (importance) and the latent variables’ average values (performance) for a specific endogenous latent variable. Thus, the IPMA emphasizes significant determinants with a relatively high importance and relatively low performance and suggests areas for the improvement of management activities (Hair, Hult, Ringle, & Sarstedt, 2014).

## - Importance-Performance matrix analysis -

The IPMA of over-indebted payment intention (see Figure 31 for not-imprisoned) was calculated after rescaling the latent variables to obtain index values due to different possible scores (e.g., 1-7 for direct measures and 1-49 for beliefs). As shown, the IPMA of Intention revealed that Subjective Norm was of primary importance for payment intention in the mail-order business. Moreover, its performance was above the average and at 84.7 %, relatively high compared to the other constructs. Attitude was not as important as subjective norm, but performs well (89.4%) whereas Perceived Control was of a higher importance than attitude but had less performance. Behavioural Beliefs performed very well but were of lower importance. Control Beliefs on the other hand, had more relevance because of higher importance. Consequently, managerial activities to improve payment intention should focus on the Subjective Norm and Behavioural Control construct for the not-imprisoned population. Those factors were mainly outside the influence of a specific mail-order company; therefore, the IPMA indicates that the association work with potential improvements for the German society is of great importance. This will be highlighted in chapter 7 and 8.

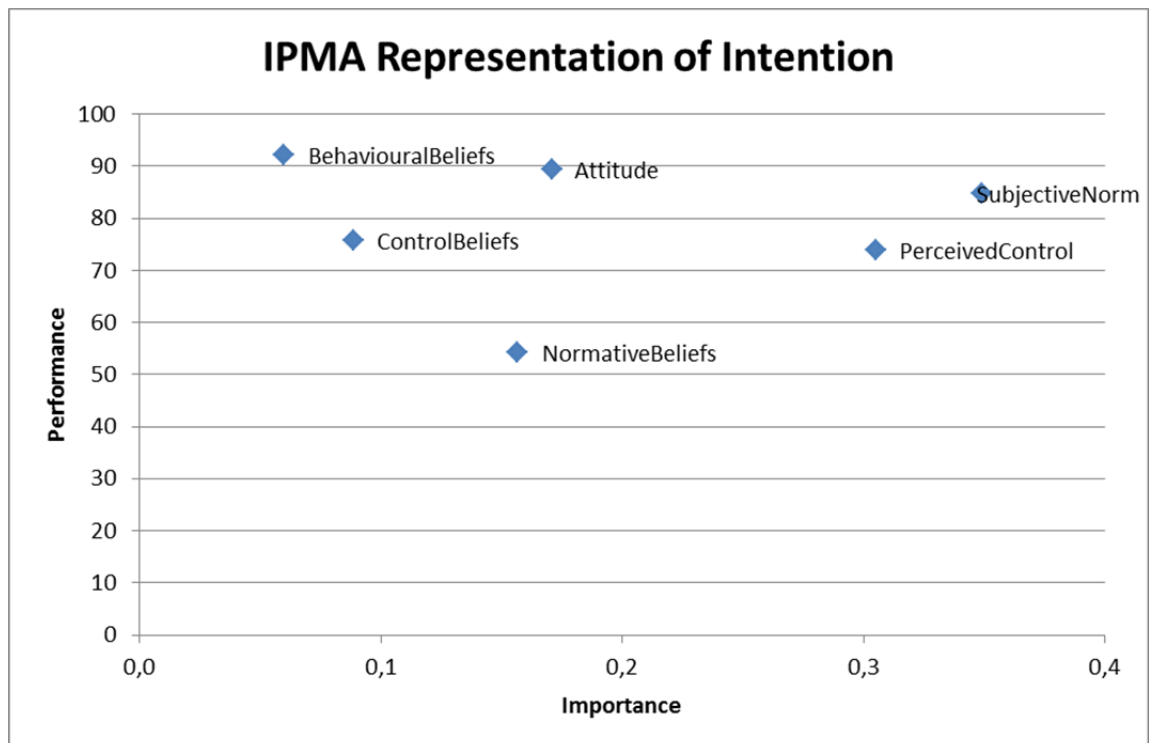


Figure 31: IPMA Representation of Intention in the TPB (model not-imprisoned)

Figure 32 demonstrates the IPMA of the imprisoned population. In contrast to Figure 31 above (non-imprisoned), it highlights the importance of attitude and

## - Heterogeneous Data – Multi-Group Analysis -

subjective norm and that managerial activities for the imprisoned group should focus on Attitude and Subjective Norm. In accordance with the findings of the not-imprisoned group, improvements within the society and personal circumstances are of interest to address and increase payment intention of imprisoned individuals. Moreover, their current limited situation might affect the perceived behavioural control.

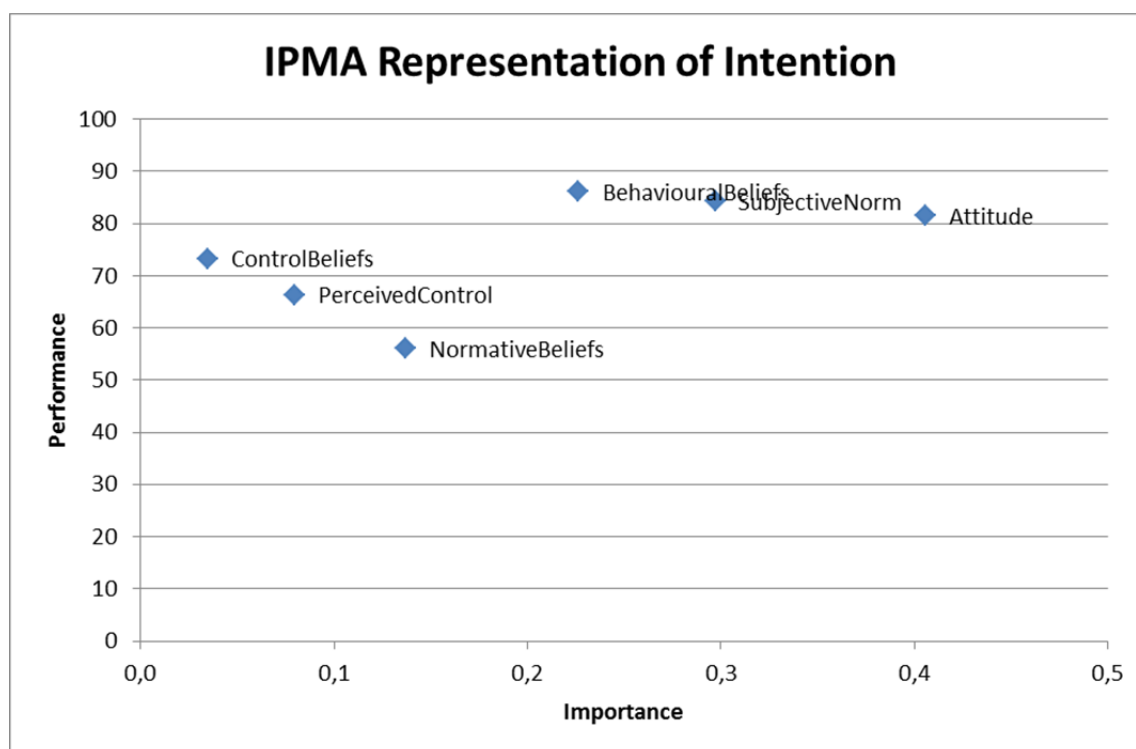


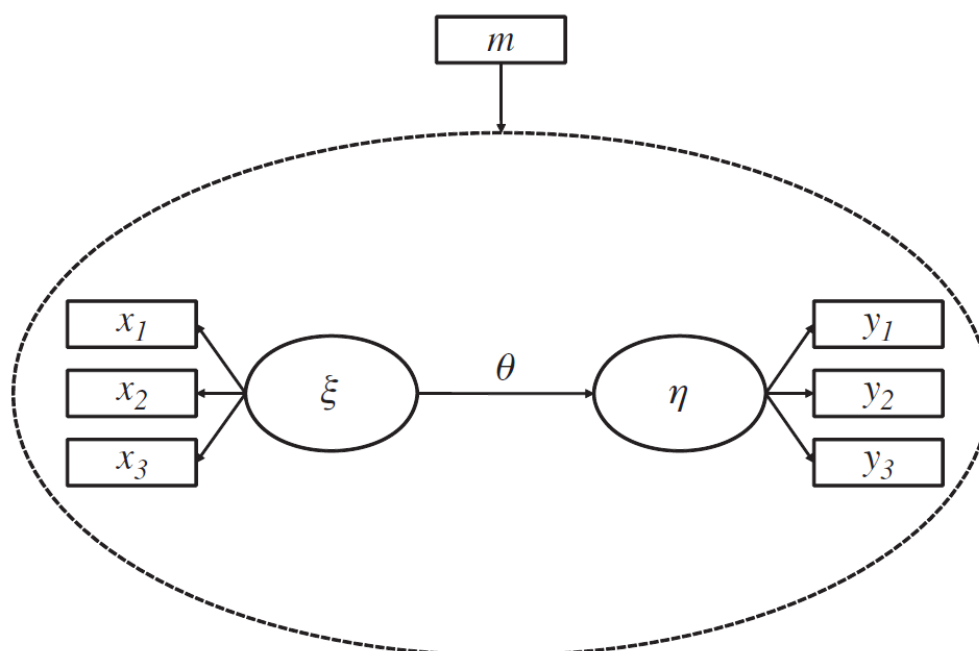
Figure 32: IPMA Representation of Intention in the TPB model (model imprisoned)

A risk to the validity of PLS-SEM results and the outcome of the IPMA analysis might lie in the heterogeneity of the underlying observations. Thus, heterogeneity can lead to erroneous results and misinterpretations (Henseler, Ringle, & Sinkovics, 2009). The next section examines different groups.

### 5.5 Heterogeneous Data – Multi-Group Analysis

In general, within PLS path models the cause-effect relationships “imply that exogenous latent variables directly affect endogenous latent variables without any systematic influences of other variables” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 243). In general, there is an assumption that all the observations are well represented by a unique global model (Sarstedt, 2008). This assumption of homogeneity is unrealistic in many real-world applications because people are

likely to be heterogeneous in their evaluations and perceptions (Sarstedt, 2008). However, the failure to consider data heterogeneity can lead to incorrect conclusions because the validity of PLS-SEM results is threatened (Hair, Hult, Ringle, & Sarstedt, 2014; see also Becker, Rai, Ringle, & Völckner, 2013; Hair, Sarstedt, Ringle, & Mena, 2012). Figure 33 graphically illustrates the influence of a categorical moderator variable (Sarstedt, Henseler, & Ringle, 2011). The exogenous latent variable  $\xi$  is reflective measured by indicator  $x_1$  to  $x_3$ , the endogenous latent variable  $\eta$  is represented by the (reflective) indicator variables  $y_1$  to  $y_3$ , and  $\theta$  is the parameter of the relationship between  $\xi$  and  $\eta$ . A categorical moderating variable ( $m$ ) potentially exerts an influence on all model relations. Group effects related to structural model relations could therefore be analysed where “a population parameter  $\theta$  is hypothesized as different across two subpopulations (i.e.,  $\theta^{(1)}$  and  $\theta^{(2)}$ ), which are expressed by different modalities in  $m$ ” (Sarstedt, Henseler, & Ringle, 2011, p. 199).



**Figure 33: Moderator modelling framework**

Source: Sarstedt, Henseler, & Ringle (2011, p. 199)

According to the recommendation of Hair et al. (2014), researchers need to run PLS-MGA (PLS-SEM multi-group analysis) in order to assess significant differences between coefficients. Henseler, Ringle, and Sinkovics (2009) suggested that the primary approach for PLS-MGA is a t-test, as described by Keil, Tan, Wei, Saarinen, Tuunainen, & Wassenaar (2000).

### Parametric approach

Chin (2000) and Keil et al. (2000) proposed a two-independent-samples t-test to compare path coefficients across two groups of data.

“If the standard errors are equal, the test statistic (i.e., the empirical t value) is computed as follows:

$$t = \frac{|p^{(1)} - p^{(2)}|}{\sqrt{\frac{(n^{(1)} - 1)^2}{n^{(1)} + n^{(2)} - 2} * se(p^{(1)})^2 + \frac{(n^{(2)} - 1)^2}{n^{(1)} + n^{(2)} - 2} * se(p^{(2)})^2 * \sqrt{\frac{1}{n^{(1)}} + \frac{1}{n^{(2)}}}}}$$

To reject the null hypothesis of equal path coefficients, the empirical t value must be larger than the critical value from a t distribution with  $n^{(1)} + n^{(2)} - 2$  degrees of freedom.

If the standard errors are unequal, the test statistic takes the following form:

$$t = \frac{|p^{(1)} - p^{(2)}|}{\sqrt{\frac{n^{(1)} - 1}{n^{(1)}} * se(p^{(1)})^2 + \frac{n^{(2)} - 1}{n^{(2)}} * se(p^{(2)})^2}}$$

This test statistic is also asymptotically  $t$  distributed, but with the following degrees of freedom ( $df$ ):

$$df = \left\| \left\| \frac{\left( \frac{(n^{(1)} - 1)}{n^{(1)}} * se(p^{(1)})^2 + \frac{(n^{(2)} - 1)}{n^{(2)}} * se(p^{(2)})^2 \right)^2}{\frac{(n^{(1)} - 1)}{n^{(1)^2}} * se(p^{(1)})^4 + \frac{(n^{(2)} - 1)}{n^{(2)^2}} * se(p^{(2)})^4} - 2 \right\| \right\|$$

$[n^{(1)}, n^{(2)} =$  number of observations in Group 1 and 2

$p^{(1)}, p^{(2)} =$  path coefficients of Group 1 and 2

$se(p^{(1)}), se(p^{(2)}) =$  standard error of parameter estimates of Group 1 and 2.]” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 248; see also Satterthwaite, 1946; Welch, 1947; Nitzl, 2010).

The parametric approach by Keil et al. (2000) assumes that the underlying data will follow a normal distribution, which does not fit with the distribution-free regarded character of PLS-SEM (Chin & Dibbern, 2010; Henseler, 2012; Hair, Hult, Ringle, & Sarstedt, 2014). Therefore, Henseler (2012) and Sarstedt, Henseler, and Ringle (2011) proposed nonparametric procedures to execute PLS-MGA.



### Non-parametric approach

The novel approach to PLS-based multi-group analysis by Henseler (2012) evaluates the detected distribution of the bootstrap results. Comparable with the parametric approach, the data to be compared is divided into subsamples (groups) and becomes subject to a separate bootstrap analysis. Instead of relying on distributional assumptions, the new approach assesses the robustness of the bootstrap subsample estimates by its outcome distribution (Henseler, Ringle, & Sinkovics, 2009; Henseler, 2012). Applying this test does not require any distributional assumptions (Henseler, Ringle, & Sinkovics, 2009). Sarstedt, Henseler, & Ringle (2011, p. 202) explained Henseler's PLS Multigroup analysis:

“Given two subsamples with different parameter estimates  $\tilde{\theta}^{(1)}$  and  $\tilde{\theta}^{(2)}$ , groups can be indexed – without any loss of generality – so that  $\tilde{\theta}^{(1)} > \tilde{\theta}^{(2)}$ . In order to assess the significance of a group effect, the conditional probability  $p(\tilde{\theta}^{(1)} \leq \tilde{\theta}^{(2)} \mid \tilde{\theta}^{(1)}, \tilde{\theta}^{(2)}, CDF(\theta^{(1)}), CDF(\theta^{(2)}))$  has to be determined on the basis of the group-specific parameter estimates  $\tilde{\theta}^{(g)}$  ( $g \in \{1, 2\}$ ) and the empirical cumulative distribution functions (CDFs). In an initial step, the centered bootstrap estimates ( $\tilde{\theta}_i^{(g)*}$ ) have to be computed as follows:

$$\tilde{\theta}_i^{(g)*} = \tilde{\theta}_i^{(g)} - \frac{1}{B} \sum_{i=1}^B \tilde{\theta}_i^{(g)} + \tilde{\theta}^{(g)}$$

where  $\tilde{\theta}_i^{(g)*}$  represents the bootstrap estimate in group  $g$  ( $g \in \{1, 2\}$ ) and bootstrap sample  $i$  ( $i \in \{1, \dots, B\}$ ). By using the Heaviside step function  $H(x^*)$ , as defined by

$$H(x^*) = \frac{1 + \text{sgn}(x^*)}{2}$$

and the bootstrap estimates as discrete manifestations of the CDFs, the conditional probability is computed as follows:

$$p(\tilde{\theta}^{(1)} \leq \tilde{\theta}^{(2)} \mid \tilde{\theta}^{(1)}, \tilde{\theta}^{(2)}, CDF(\theta^{(1)}), CDF(\theta^{(2)})) = \frac{1}{B^2} \sum_{i=1}^B \sum_{j=1}^B H(\tilde{\theta}_j^{(2)*} - \tilde{\theta}_i^{(1)*})$$

“The idea behind it is simple: Each centered bootstrap estimate of the second group is compared with each centered bootstrap estimate of the first group. The number of positive differences divided by the total number of comparisons (i.e.,  $B^2$ ) indicates how probable it is in the

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population that the parameter of the second group is greater than the parameter of the first group” (Henseler, 2012, p. 497).

Those tests were applied to the groups imprisoned vs. not imprisoned, and male vs. female in order to explore statistically significant differences. The following sections demonstrate the analytics outcomes.

### 5.5.1 Imprisoned vs. Not-imprisoned payment intention

As already mentioned, it is an important question whether imprisoned and not-imprisoned debtors might differ in their payment intention. Table 47 shows the results of the structural model evaluation of both models. Overall, these results provide clear support for the measures’ reliability and convergent validity. The basic requirements of both model generation and comparison were fulfilled.

		Imprisoned	not- Imprisoned
<b>Latent variables</b>			
Attitude	composite reliability	0.8252	0.8445
	AVE	0.5446	0.5770
Subjective Norm	composite reliability	0.7713	0.7736
	AVE	0.5356	0.5335
Perceived Control	composite reliability	0.7657	0.7905
	AVE	0.5301	0.5573
BehaviouralBeliefs	composite reliability	0.8378	0.7663
	AVE	0.6333	0.5360
Normative Beliefs	composite reliability	0.8316	0.8012
	AVE	0.6256	0.5120
Control Beliefs	composite reliability	0.8084	0.7572
	AVE	0.5932	0.5763
Intention	composite reliability	0.8421	0.8340
	AVE	0.6410	0.6297
n		41	97
<b>path relationships</b>			
BehaviouralBeliefs -> Attitude		0.5579***	0.3503***
Attitude -> Intention		0.4097**	0.1692*
NormativeBeliefs -> SubjectiveNorm		0.4573***	0.4479***
SubjectiveNorm -> Intention		0.2930*	0.3500***
ControlBeliefs -> PerceivedControl		0.4378***	0.2911***
PerceivedControl -> Intention		0.0779 <sup>ns</sup>	0.3050***

**Table 47: Results of the TPB-model**

**Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant**

The bootstrap analyses using 5,000 samples showed that almost all the TPB constructs had a significant impact on payment intention of individuals that used

mail-order companies. A comparison of the circumstance-specific and model specific path coefficients revealed several differences in the effects. For example, whereas attitude had the strongest effect on payment intention in the imprisoned subsample, it had a much weaker effect in the not-imprisoned subsample. Instead, subjective norms exerted the strongest influence on payment intention in the not-imprisoned subsample. However, the question emerged whether these numeric differences between the path coefficients were statistically significant.

### Result of the parametric test (knowing that the data is non-normal distributed)

“The selection of the appropriate parametric test statistic depends on whether the standard errors can be assumed to be equal or unequal in the population. Therefore, we first need to examine the results of Levene’s test” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 253).

Table 48 shows the comparison of path relationships both the imprisoned and not-imprisoned model.

<i>path relationships</i>	<i>Comparison</i>	$P_{(imp.)}$	$se(p^{(imp.)})$	$P_{(not-imp.)}$	$se(p^{(not-imp.)})$	diff	Levene’s test	se assumed*	$t_{parametric}$	$P_{parametric}$
BehaviouralBeliefs -> Attitude	imprisoned vs. not-imprisoned	0.5579	0.1146	0.3503	0.0967	0.2076	0.9706	unequal	1.3975	0.1655
Attitude -> Intention	imprisoned vs. not-imprisoned	0.4097	0.1782	0.1692	0.0933	0.2405	0.0500	equal	1.3153	0.1906
NormativeBeliefs -> SubjectiveNorm	imprisoned vs. not-imprisoned	0.4573	0.0882	0.4479	0.0801	0.0094	0.9915	unequal	0.0796	0.9367
SubjectiveNorm -> Intention	imprisoned vs. not-imprisoned	0.2930	0.1799	0.3500	0.1086	0.0570	0.2937	equal	0.2817	0.7786
ControlBeliefs -> PerceivedControl	imprisoned vs. not-imprisoned	0.4378	0.1585	0.2911	0.0982	0.1467	0.3649	equal	0.8084	0.4203
PerceivedControl -> Intention	imprisoned vs. not-imprisoned	0.0779	0.1743	0.3050	0.0887	0.2271	0.0308	unequal	1.1739	0.2452

**Table 48: PLS-MGA results on a normal-distribution approach**

Levene’s test on behavioural beliefs towards attitude had a p value of 0.9706 which was higher than 0.95 and implied that the null hypothesis of equal errors could be rejected (at a significance level of 0.10). The resulting t value was 1.3975, which yielded a p value of 0.1655, thus indicating no significant difference in the effect of behavioural beliefs on attitude. Moreover, the other path coefficients were not significant at a given level. That result indicated no significant difference between those two models.

Again, the data was not normally distributed. Therefore, another approach was necessary. However, based on discussions with PLS-SEM experts and following in practice, the parametric test was also applied to non-normally

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distributed data and had similar outputs to the non-parametric approach (see e.g. Qureshi & Compeau, 2009). Another non-parametric approach was and had to be conducted to acquire statistical validation.

### Result of the non-parametric approach

The outcome of the bootstrapping analysis per group was the basis of the calculated p-values for group differences in the effects of the constructs of the TPB on payment behaviour (see Table 49). Only the path behavioural beliefs -> attitude was significantly more significant for people being imprisoned ( $p < 0.10$ ). All other path coefficients failed to demonstrate a statistical difference between the two models. This means, for imprisoned over-indebted people, the level of Behavioural Beliefs was a stronger predictor for Attitude towards payment intention than for over-indebted people not being imprisoned. However, based on the sample size and the p-value of 0.0853 it was only weakly significant, as demonstrated by the above parametric test, which showed no difference between these two groups.

<i>path relationships</i>	<i>Comparison</i>	$p_{(imp.)}$	$se(p^{(imp.)})$	$p_{(not-imp.)}$	$se(p^{(not-imp.)})$	diff	$p_{Henseler}$
BehaviouralBeliefs -> Attitude	imprisoned vs. not-imprisoned	0.5579	0.1146	0.3503	0.0967	0.2076	<b>0.0853</b>
Attitude -> Intention	imprisoned vs. not-imprisoned	0.4097	0.1782	0.1692	0.0933	0.2405	0.1147
NormativeBeliefs -> SubjectiveNorm	imprisoned vs. not-imprisoned	0.4573	0.0882	0.4479	0.0801	0.0094	0.4693
SubjectiveNorm -> Intention	imprisoned vs. not-imprisoned	0.2930	0.1799	0.3500	0.1086	0.0570	0.5962
ControlBeliefs -> PerceivedControl	imprisoned vs. not-imprisoned	0.4378	0.1585	0.2911	0.0982	0.1467	0.1418
PerceivedControl -> Intention	imprisoned vs. not-imprisoned	0.0779	0.1743	0.3050	0.0887	0.2271	0.8729

**Table 49: non-parametric test of heterogeneous data**

**Legend: Imp.= imprisoned model; not-imp. = not-imprisoned sample**

Based on the outcome, a model based on the blend of both populations could be calculated. Due to its difference, even though not statistically determined, the path coefficients were different (see Figure 34). The influence of attitude in the imprisoned population was dominant, however, in the not-imprisoned population, subjective norm was dominant. In sum, the composite model of imprisoned -> and not-imprisoned respondents had statistically significant values on each construct ( $p < 0.01$ ). However, due to the unique environment of imprisoned people and their population occupying only a minority of over-indebted consumers, this model of composite populations was not used for the further investigation.

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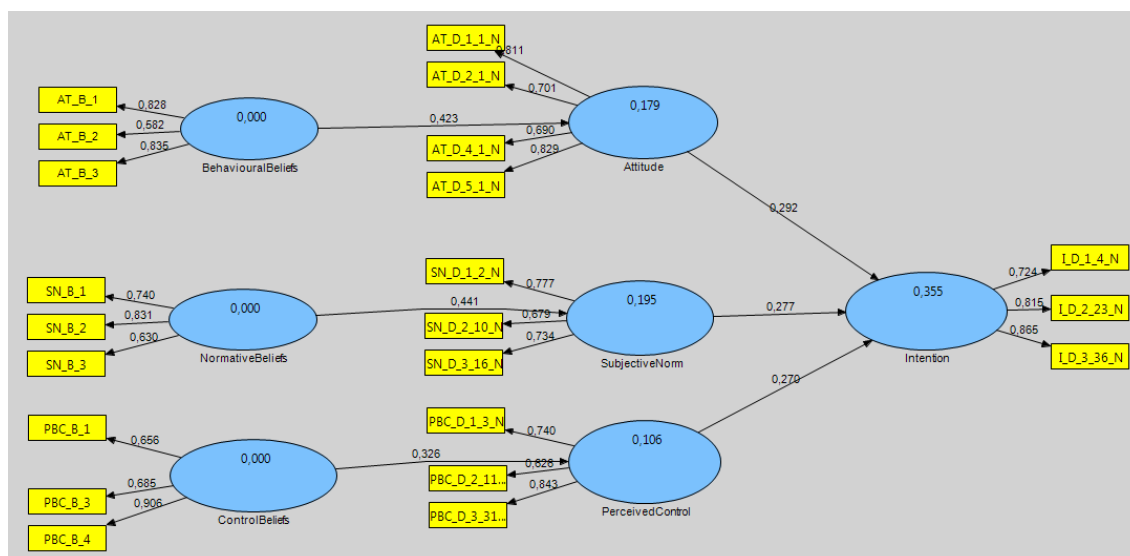


Figure 34: Outcome of the TPB PLS-SEM model (composite)

### 5.5.2 Male vs. female payment intention

Due to practical reasons such as typical gender of main target group, it was significant to investigate whether a difference of intention existed between men and women. A mail-order company usually has the following information about potential and existing customers: address, gender, order history, and frequently date-of-birth that is mandatory in several mail-order companies. An important aspect of this study was the investigation of payment intention between men and women.

According to the work of Liang, Saraf, Qing, and Yajiong (2007) control variables were defined and their direct influence on payment intention was measured. The control variables, asked in the questionnaire, were: a) gender, b) mail-order customer within the last 12 months (yes / no), and c) current open debts at mail-order customers (yes / no). Whereas mail-order customer (path coefficient 0.033, not significant) and open-debts (-0.052, not significant) had statistically no direct influence on intention, gender (coding female = 0, male = 1) had an influence (-.231, significant,  $p < 0.01$ , see Figure 35) with a weak  $f^2$  of 0.0773 and was therefore further investigated. The negative impact demonstrated the greater influence of women towards intention which was latterly confirmed.

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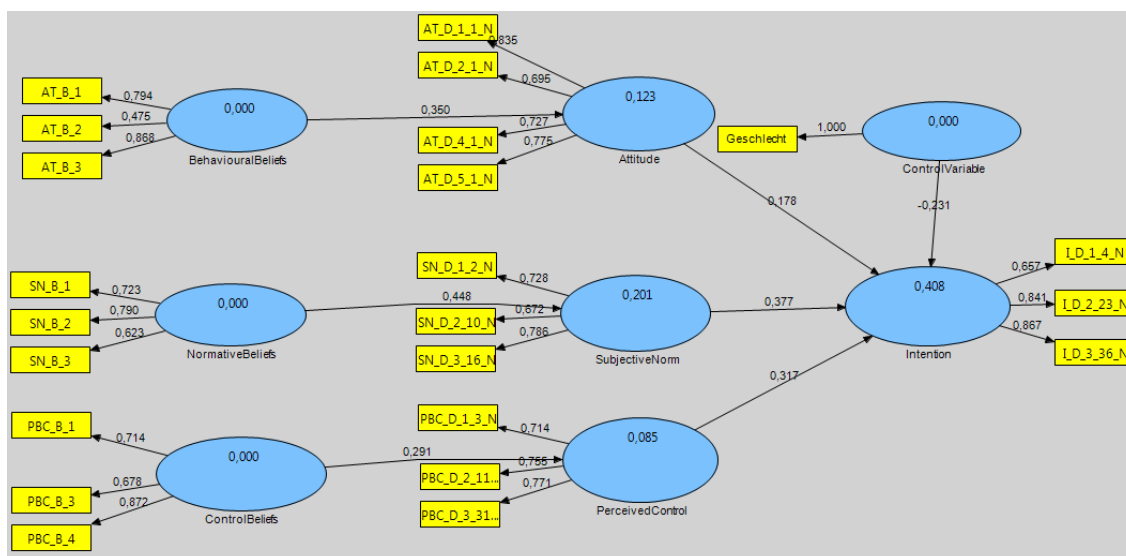


Figure 35: Usage of control variable gender in the TPB model (not-imprisoned)

Note: “Geschlecht” is the German word for gender; the above approach was conducted for each control variables.

Although there was only a statistically small difference between the imprisoned and not-imprisoned group, the following analysis was only conducted on the not-imprisoned population. This decision was based on practical issues, as only not-imprisoned people are a current risk for mail-order companies and imprisoned people are of potential risk. Imprisoned people could order by mail-order but had to ensure that they pay their invoice immediately (e.g., via cash on delivery). Moreover, the mentioned 10 times rule for PLS-SEM prohibited testing of gender difference within the imprisoned model.

Figure 36 demonstrates the analysis of not-imprisoned women in the sample (n=45). With an R<sup>2</sup> of 0.579 it explained payment intention much better than the unspanned group (R<sup>2</sup> = 0.358; male R<sup>2</sup>=0.451). Moreover, indicators that had outer loadings of 0.968 (PBC\_B\_3; “arranging and using a payment plan”) in the female-group had no commonality in the male-group (loading of 0.024, see Figure 37).

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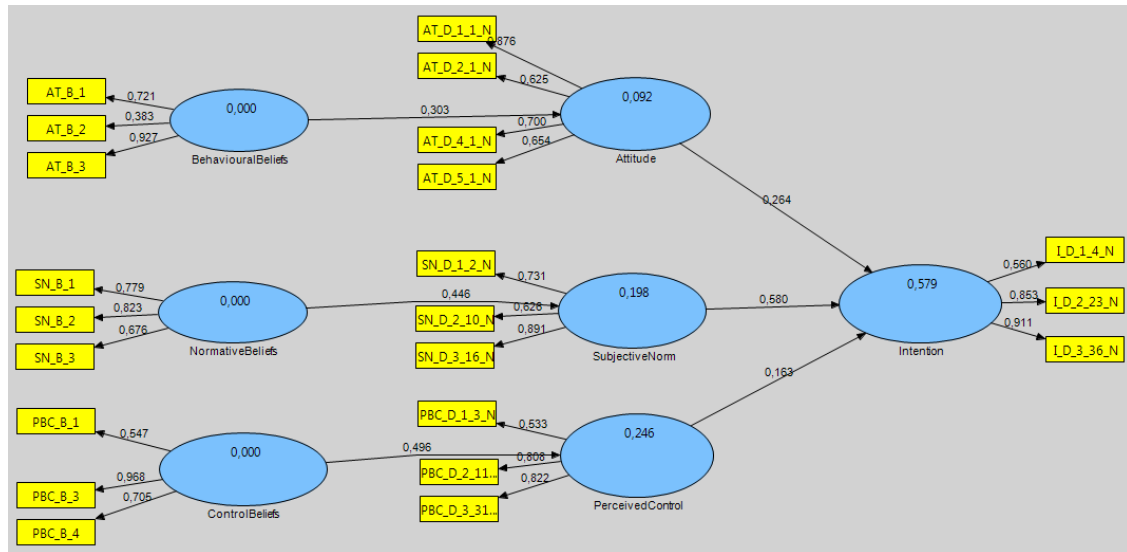


Figure 36: Outcome of the TPB-model of not-imprisoned women

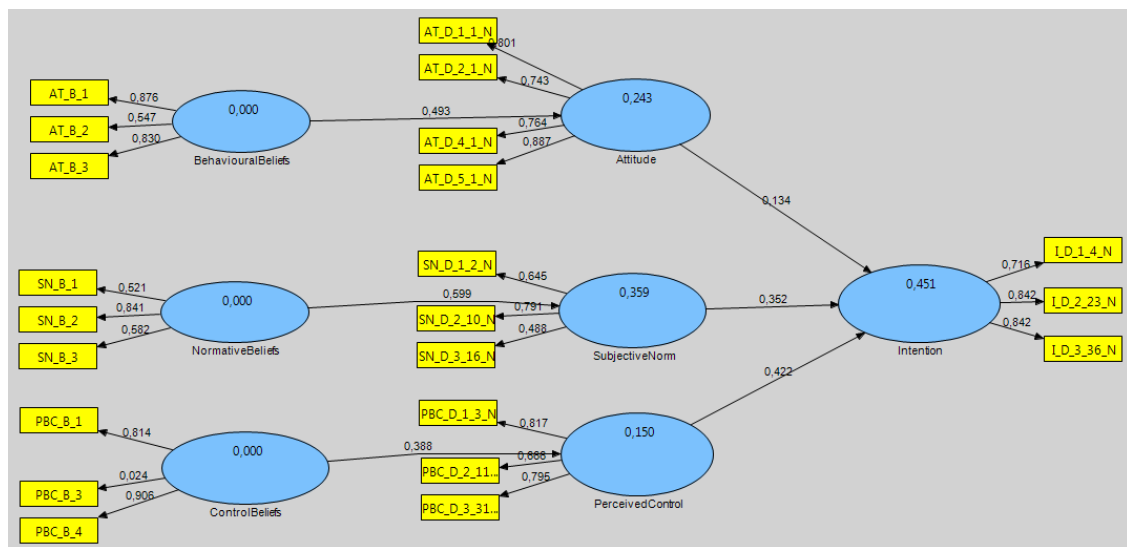


Figure 37: Outcome of the TPB-model of not-imprisoned men

Based on the sample of 45 and 52 respondents, the path coefficients were almost significant but differed in strength toward payment intention (see Table 50). In the population of women, subjective norm had the most influence on intention (highly significant  $p < 0.01$ ). In contrast, men regard perceived behavioural control as the most important factor for payment (highly significant  $p < 0.01$ ). For women the influence of perceived behavioural control was statistically not significant.

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	male	female
n	52	45
<b>path relationships</b>		
BehaviouralBeliefs -> Attitude	0.4928***	0.3031*
Attitude -> Intention	0.1339 <sup>ns</sup>	0.2643*
NormativeBeliefs -> SubjectiveNorm	0.5991***	0.4455***
SubjectiveNorm -> Intention	0.3523***	0.5797***
ControlBeliefs -> PercievedControl	0.3877***	0.4960**
PercievedControl -> Intention	0.4219***	0.1625 <sup>ns</sup>

Table 50: path relationships of the male and female TPB model (not-imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \*<0.1; ns = not significant; bootstrapping with less conservative "Individual sign changes" Option

Regarding the p-value of the non-parametric approach suggested by Henseler (2012) there was a significant difference between the male and female regarding two important TPB-constructs towards payment intention (see Table 51, marked bold). Although the important path coefficients of subjective norm -> intention and perceived behavioural control -> intention were weakly significant ( $p < 0.10$ ), this had to be regarded in the environment of a small sample size.

path relationships	Comparison	p <sup>(male)</sup>	se(p <sup>(male)</sup> )	p <sup>(female)</sup>	se(p <sup>(female)</sup> )	diff	p <sup>Henseler</sup>
BehaviouralBeliefs -> Attitude	male vs. female	0.4928	0.1152	0.3031	0.2256	0.1897	0.2053
Attitude -> Intention	male vs. female	0.1339	0.1236	0.2643	0.1480	0.1304	0.7520
NormativeBeliefs -> SubjectiveNorm	male vs. female	0.5991	0.0685	0.4455	0.1279	0.1536	0.1277
SubjectiveNorm -> Intention	male vs. female	0.3523	0.1265	0.5797	0.1394	0.2274	<b>0.9023</b>
ControlBeliefs -> PerceivedControl	male vs. female	0.3877	0.1472	0.4960	0.2351	0.1083	0.7938
PerceivedControl -> Intention	male vs. female	0.4219	0.1173	0.1625	0.1176	0.2594	<b>0.0587</b>

Table 51: model comparison male-female

The finding of gender characteristics is widespread in current research. A large body of literature documents gender differences in levels of risk taking, where women were more risk averse than men (e.g., Loewenstein, Weber, Hsee, & Welch, 2001; Brody, 1993; Arch, 1993; Croson & Gneezy, 2009). "Risk and uncertainty are pervasive in economic life, playing a role in almost every important economic decision. As a result, understanding individual attitudes towards risk is intimately linked to the goal of predicting economic behavior" (Dohmen, 2005, p. 1). Men and women deviate in their emotional reaction to uncertain situations which results in differences in risk taking (Croson & Gneezy, 2009). Furthermore, as men are more confident than women, they might differ in their perception of the probability distribution underlying a given



risk and tend to view risky situations as challenges which lead to increased risk tolerance (Croson & Gneezy, 2009). Dohmen's (2005) representative sample of the German population had the following outcome regarding risk differences:

“(1) women are less willing to take risks than men, at all ages; (2) increasing age is associated with decreasing willingness to take risks; (3) taller individuals are more willing to take risks; (4) individuals with highly-educated parents are more willing to take risks. These effects are large and very robust, with the exception of parental education, which becomes insignificant in some specifications” (p. 2).

The risk-averse characteristic of short people points to a probable mechanism behind the higher earnings potential of taller humans (Persico, Postlewaite, & Silverman, 2004) and the age-effect implies increased financial conservatism of advanced years (Dohmen, 2005).

Further investigation regarding gender differences in payment behaviour at mail-order companies is highly recommended and based on the current findings will most likely deliver significant differences between men and women.

## **5.6 Investigation of effectiveness of extensions on the TPB-Model**

As mentioned in the description of the TPB, the theory is open for extensions (Ajzen, 1991). Great influence and increase on  $R^2$  was expected by adding moral norms. Past behaviour should not have an influence to the present constructs (as discussed in section 3.4.4). Within the following section those two extensions were added and their influence analysed.

### **5.6.1 Moral norms**

Based on the findings of Beck and Ajzen (1991), adding moral norms could improve the  $R^2$  of payment intention. In particular, the inclusion of a further construct could provide insights in the environment of negative payment behaviour. Defining moral norms as a person's perception of the moral correctness or incorrectness of performing a certain behaviour (see Ajzen, 1991; Sparks, 1994) means moral norms could be regarded as one's own socially determined and socially validated values (Conner & Armitage, 1998; Manstead, 2000).

- Investigation of effectiveness of extensions on the TPB-Model -

As explained in 4.5.2.5, three questions were asked in order to assess moral norms. The result of their inclusion is demonstrated in Figure 38. The imprisoned population was also analysed (see appendix A-3.8 for outcomes and evaluation).

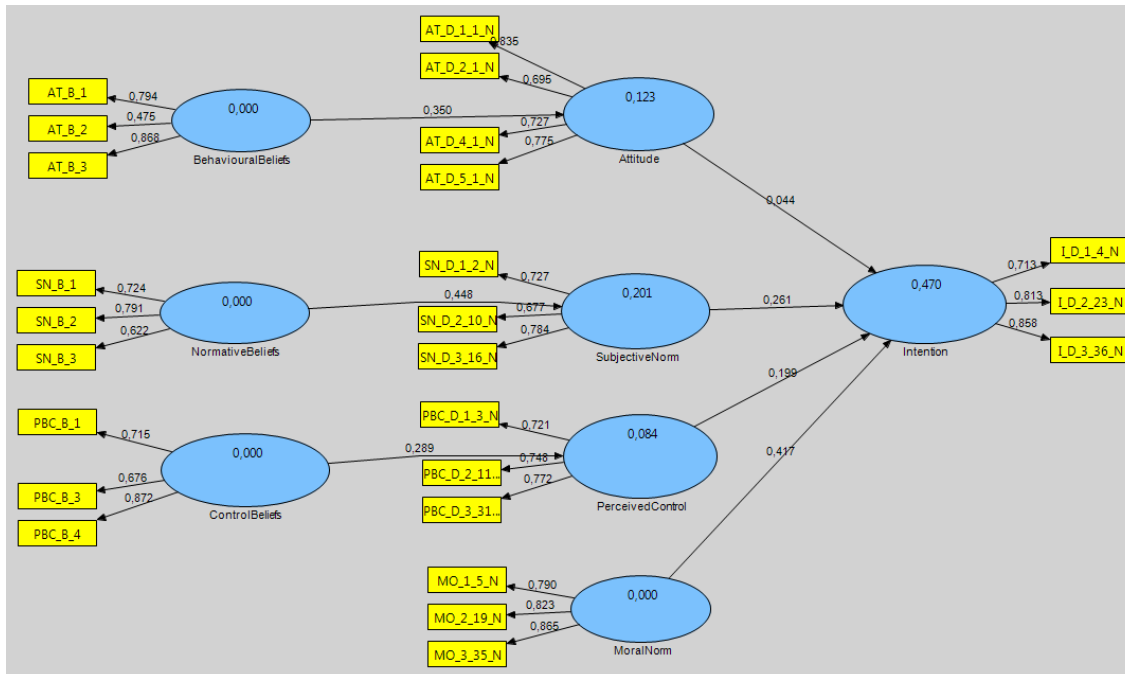


Figure 38: Extended version of TPB (not-imprisoned)

The addition of moral norms increased R<sup>2</sup> from 0.3580 to 0.4705 and almost every path coefficient delivers acceptable values (see Table 52). Moral norm had the highest influence on payment intention (0.4217\*\*\*) whereas attitude lost its former weak significant influence on intention. However, subjective norm was still of great importance for the prediction of payment intention (0.2614\*\*\*). The results will be discussed in the next chapters.

## - Investigation of effectiveness of extensions on the TPB-Model -

		Imprisoned	not- Imprisoned	inkl. Moral
<b>Latent variables</b>				
Attitude	composite reliability	0.8252	0.8445	0.8445
	AVE	0.5446	0.5770	0.5771
Subjective Norm	composite reliability	0.7713	0.7736	0.7738
	AVE	0.5356	0.5335	0.5337
Percieved Control	composite reliability	0.7657	0.7905	0.7911
	AVE	0.5301	0.5573	0.5581
BehaviouralBeliefs	composite reliability	0.8378	0.7663	0.7663
	AVE	0.6333	0.5360	0.5360
Normative Beliefs	composite reliability	0.8316	0.8012	0.7572
	AVE	0.6256	0.5120	0.5121
Control Beliefs	composite reliability	0.8084	0.7572	0.8014
	AVE	0.5932	0.5763	0.5766
Intention	composite reliability	0.8421	0.8340	0.8386
	AVE	0.6410	0.6297	0.6354
Moral	composite reliability			0.8658
	AVE			0.6830
n		41	97	97
R <sup>2</sup>		<b>0.3854</b>	<b>0.3580</b>	<b>0.4705</b>
<b>path relationships</b>				
BehaviouralBeliefs -> Attitude		0.5579***	0.3503***	0.3502***
Attitude -> Intention		0.4097**	0.1692*	0.0443 <sup>ns</sup>
NormativeBeliefs -> SubjectiveNorm		0.4573***	0.4479***	0.4481***
SubjectiveNorm -> Intention		0.2930*	0.3500***	0.2614***
ControlBeliefs -> PerceivedControl		0.4378***	0.2911***	0.2892***
PerceivedControl -> Intention		0.0779 <sup>ns</sup>	0.3050***	0.1985**
Moral -> Intention				0.4175***

Table 52: Statistical outcome of the addition of moral norms (not-imprisoned)

Significance: \*\*\* &lt;0.01, \*\* &lt;0.05, \* &lt;0.1; ns = not significant

The  $f^2$  factor analysis demonstrated the overwhelming effect of moral norms in relation to the other constructs (see Table 53) of the extended TPB-model.

	Intention	
	$f^2$ effect	$f^2$ effect
Attitude	0.0026	<small
PerceivedControl	0.0469	small
SubjectiveNorm	0.0860	small
Moral	0.1752	medium

Table 53:  $f^2$ -factor of the extended TPB-model (not-imprisoned)

## - Investigation of effectiveness of extensions on the TPB-Model -

### 5.6.2 Past behaviour

Based on more than 16 years of personal experience in the mail-order industry, past behaviour is the primary criteria used to predict future payment behaviour. If mail-order companies have a payment history of a client, they usually predict future payment probability on this account and decide whether the potential customer will get the order fulfilled or not. However, due to changes in personal environment, voluntary or not, future behaviour could change immediately. Whether over-indebted peoples' past behaviour is a suitable predictor for future behaviour was investigated through an extension of the TPB with self-reported past-behaviour. Therefore the payment behaviour in the past was added as an additional construct (see Figure 39; appendix A-3.8 for imprisoned sample with slightly different outcome).

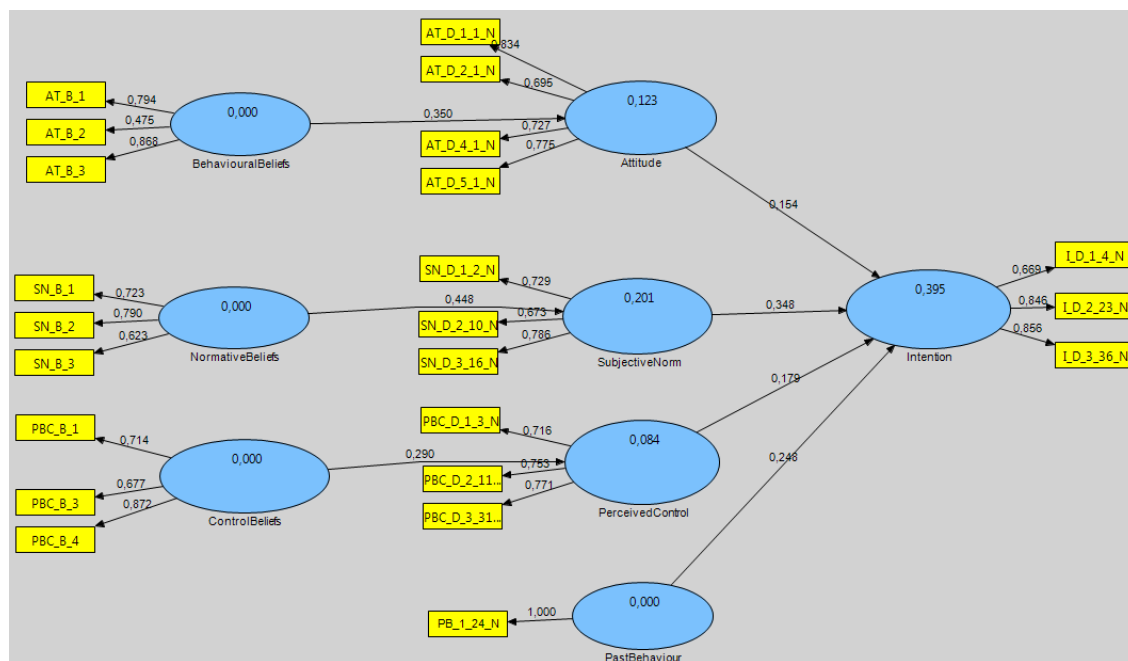


Figure 39: Addition of past behaviour to the TPB (not-imprisoned)

The statistical analysis demonstrated that Past Behaviour had an influence to the payment intention (behaviour) (path coefficient 0.2477 with  $p < 0.05$ , see Table 54) and increased slightly the  $R^2$  to 0.3953 with a small  $f^2$  effect (see Table 55).

## - Investigation of effectiveness of extensions on the TPB-Model -

		Imprisoned	not- Imprisoned	inkl. Past B.
<b>Latent variables</b>				
Attitude	composite reliability	0.8252	0.8445	0.8446
	AVE	0.5446	0.5770	0.5772
Subjective Norm	composite reliability	0.7713	0.7736	0.7737
	AVE	0.5356	0.5335	0.5336
Perceived Control	composite reliability	0.7657	0.7905	0.7907
	AVE	0.5301	0.5573	0.5576
Behavioural Beliefs	composite reliability	0.8378	0.7663	0.7663
	AVE	0.6333	0.5360	0.5360
Normative Beliefs	composite reliability	0.8316	0.8012	0.7572
	AVE	0.6256	0.5120	0.5120
Control Beliefs	composite reliability	0.8084	0.7572	0.8012
	AVE	0.5932	0.5763	0.5764
Intention	composite reliability	0.8421	0.8340	0.8360
	AVE	0.6410	0.6297	0.6323
Past Behaviour	composite reliability			1.0000
	AVE			1.0000
n		41	97	97
<b>R<sup>2</sup></b>		<b>0.3854</b>	<b>0.3580</b>	<b>0.3953</b>
<b>path relationships</b>				
Behavioural Beliefs -> Attitude		0.5579***	0.3503***	0.3501***
Attitude -> Intention		0.4097**	0.1692*	0.1537*
Normative Beliefs -> Subjective Norm		0.4573***	0.4479***	0.4479***
Subjective Norm -> Intention		0.2930*	0.3500***	0.3481***
Control Beliefs -> Perceived Control		0.4378***	0.2911***	0.2904***
Perceived Control -> Intention		0.0779 <sup>ns</sup>	0.3050***	0.1789*
Past Behaviour -> Intention				0.2477**

Table 54: Statistics addition of past behaviour to the TPB (not-imprisoned)

Significance: \*\*\* &lt;0.01, \*\* &lt;0.05, \* &lt;0.1; ns = not significant

	Intention	
	f <sup>2</sup> effect	f <sup>2</sup> effect
Attitude	0.0304	small
Perceived Control	0.0352	small
Subjective Norm	0.1492	small
Past Behaviour	0.0581	small

Table 55: f<sup>2</sup> effect on addition of past behaviour to the TPB

The results will be discussed in the chapters 6 and 7.

## - Investigation of effectiveness of extensions on the TPB-Model -

## 5.6.3 Combination of both extensions

As both extensions had a positive effect on the explanation of the variance in the endogenous variable intention, it seemed appropriate to combine both extensions (see Table 56; appendix A-3.8 for imprisoned sample with slightly different outcome).

<i>Latent variables</i>		Imprisoned	not- Imprisoned			
			inkl. Moral	inkl. Past B.	inkl. both	
Attitude	composite reliability	0.8252	0.8445	0.8445	0.8446	0.8446
	AVE	0.5446	0.5770	0.5771	0.5772	0.5772
Subjective Norm	composite reliability	0.7713	0.7736	0.7738	0.7737	0.7739
	AVE	0.5356	0.5335	0.5337	0.5336	0.5338
Perceived Control	composite reliability	0.7657	0.7905	0.7911	0.7907	0.7911
	AVE	0.5301	0.5573	0.5581	0.5576	0.5582
Behavioural Beliefs	composite reliability	0.8378	0.7663	0.7663	0.7663	0.7663
	AVE	0.6333	0.5360	0.5360	0.5360	0.5360
Normative Beliefs	composite reliability	0.8316	0.8012	0.7572	0.7572	0.7572
	AVE	0.6256	0.5120	0.5121	0.5120	0.5121
Control Beliefs	composite reliability	0.8084	0.7572	0.8014	0.8012	0.8014
	AVE	0.5932	0.5763	0.5766	0.5764	0.5766
Intention	composite reliability	0.8421	0.8340	0.8386	0.8360	0.8390
	AVE	0.6410	0.6297	0.6354	0.6323	0.6359
Moral	composite reliability			0.8658		0.8659
	AVE			0.6830		0.6830
Past Behaviour	composite reliability				1.0000	1.0000
	AVE				1.0000	1.0000
n		41	97	97	97	97
R <sup>2</sup>		<b>0.3854</b>	<b>0.3580</b>	<b>0.4705</b>	<b>0.3953</b>	<b>0.4901</b>
<i>path relationships</i>						
Behavioural Beliefs -> Attitude		0.5579***	0.3503***	0.3502***	0.3501***	0.3502***
Attitude -> Intention		0.4097**	0.1692*	0.0443 <sup>ns</sup>	0.1537*	0.0429 <sup>ns</sup>
Normative Beliefs -> Subjective Norm		0.4573***	0.4479***	0.4481***	0.4479***	0.4481***
Subjective Norm -> Intention		0.2930*	0.3500***	0.2614***	0.3481***	0.2688***
Control Beliefs -> Perceived Control		0.4378***	0.2911***	0.2892***	0.2904***	0.2890***
Perceived Control -> Intention		0.0779 <sup>ns</sup>	0.3050***	0.1985**	0.1789*	0.1154 <sup>ns</sup>
Moral -> Intention				0.4175***		0.3857***
Past Behaviour -> Intention					0.2477**	0.1777*

Table 56: Statistics addition of extensions to the TPB (not-imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

Both effects were limited against its exclusive addition. However, R<sup>2</sup> could be increased from 0.3580 to 0.4901, which is impressive. The weak significance of Attitude towards intention was no longer supportable. Moreover, the significant influence of subjective norm was stable, whereas perceived behavioural control was no longer significant. Unlike any other construct, moral norms had a great influence on payment intention and expected behaviour.

## 5.7 Summary

Based on the TPB, a questionnaire was created. Over-indebted consumers were asked to voluntarily take part in a survey about their payment behaviour regarding new mail-order purchases. The responses were analysed using structural equation modelling (respectively PLS-SEM) and tested in detail for statistical validity (e.g. assessing each part of the model – inner and outer model perspective). Both for imprisoned and not-imprisoned consumers, a tailored model was observed and described. By assessing homogeneity of the data, two important results were conducted: 1. imprisoned and not-imprisoned behaviour intention did not differ significantly; 2. male and female payment intention differed significantly statistically. Moreover, as an outcome of the literature review, the extension of the TPB with moral norms and past behaviour was tested in order to increase the coefficient of determination  $R^2$  (explained variance) of payment behaviour intention. Each extension led to a significant improvement and suggested its appropriateness within the payment context.

## CHAPTER 6: RESULTS

The previous chapter outlined and validated the analytical process of the application of the TPB using structural equation modelling. This chapter merges the outcome of both the review of current studies and the analysis of the TPB model. Thus, it provides answers to the research propositions. Chapter 7 will discuss the findings provided in this chapter.

### 6.1 Results: Development and causes of debt among consumers

Based on my professional experience of over-indebtedness, it was expected that the debt increases in Germany due to widespread causes.

**Research Question:** Has debt increased among German consumers, and if so, why has it?

#### 6.1.1 Proposition 1 – expected increase of over-indebtedness

**Proposition 1:** There is an increase of over-indebtedness among German consumers.

As outlined in section 3.3, within recent years the number of over-indebted people in Germany was on a moderate constant level of approximately 6.5m which results in approximately 3.3m over-indebted households (Creditreform Wirtschaftsforschung, 2013). After years of high debt-levels (e.g., 2007 with 7.34m debtors), for 2013 the predicted amount of debtors will slightly decrease to 6.58m (-10,000 to 2012) and therefore will remain on the level of 2004.

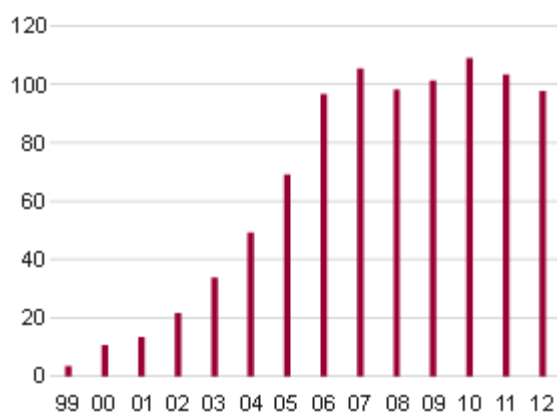
**Proposition 1** could be **confirmed** for deeply over-indebted consumers in general (see particularly Table 11 on page 41). Regarding debtors who were faced with a low level of indebtedness, proposition 1 had to be rejected. Investigation by segmentation of the indebted population led to a different view of the German consumer environment: both habitual, gender, and age-differences were uncovered and influenced the outcome. Proposition 1 had to be rejected in case segmenting debtors below age 40 and respectively above age 60. For practical reasons, this outcome therefore might differ tremendously as a function of the age distribution of a company's target group (e.g. young



## - Results: Development and causes of debt among consumers -

people living north-east of Germany had an increase vs. those of middle-age living in south-east) (Creditreform Wirtschaftsforschung, 2013).

Regarding the final result of consumer indebtedness, the legal act of private bankruptcy filings where a company's claim is typically sacrificed, declined in 2011 and 2012 (97,608 filed court procedures with receivables of 5.4 bn. Euro in 2012, see Figure 40) (Statistisches Bundesamt, 2013a). It may be predicted that this number should continue to decline to 91,050 procedures in 2013 (Creditreform Wirtschaftsforschung, 2013a). This development seemed to be affected by the constantly declining unemployment rate and demonstrated the positive trend of the labour market (Knobloch & Reifner, 2013). Again, to highlight the number of over-indebted people within a legal process: In 2013, the number of over-indebted individuals involved in a legal process was approximately 500,000. It should be understood that the lengthy legal process included individuals who filed in prior years (Knobloch & Reifner, 2013).



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**Figure 40: Development of consumer bankruptcies in Germany 1999-2012**

**Source: Statistisches Bundesamt (2013a); number legal procedures in 1,000 units.**

In general, debt situation in Germany differed with relation to the habitation, gender, age and nationality.

### Habitation:

As demonstrated in Figure 3 (comparison 2010 to 2013) and Figure 41, the northern states like Berlin (13.12% of over-indebted citizens) and Bremen (13.85%) were more effected by indebtedness than southern states like Bavaria

## - Results: Development and causes of debt among consumers -

(7.00%) or Baden-Wuerttemberg (7.87%) (Creditreform Wirtschaftsforschung, 2013). The predicted debt situation for 2013 and the unemployment rate by rural district are delineated in Figure 41. The regional distribution of the degree of over-indebtedness was caused primarily by unemployment and minor earning across German states (Creditreform Wirtschaftsforschung, 2013). Moreover, cities and metropolises offered concentrated and numerous possibilities of consumption (“seductions”), as opposed to rural areas, and consumption due to the acquisition and maintenance of social status was recognized in areas underlying a structural change (e.g. the Ruhr district) (Creditreform Wirtschaftsforschung, 2013).

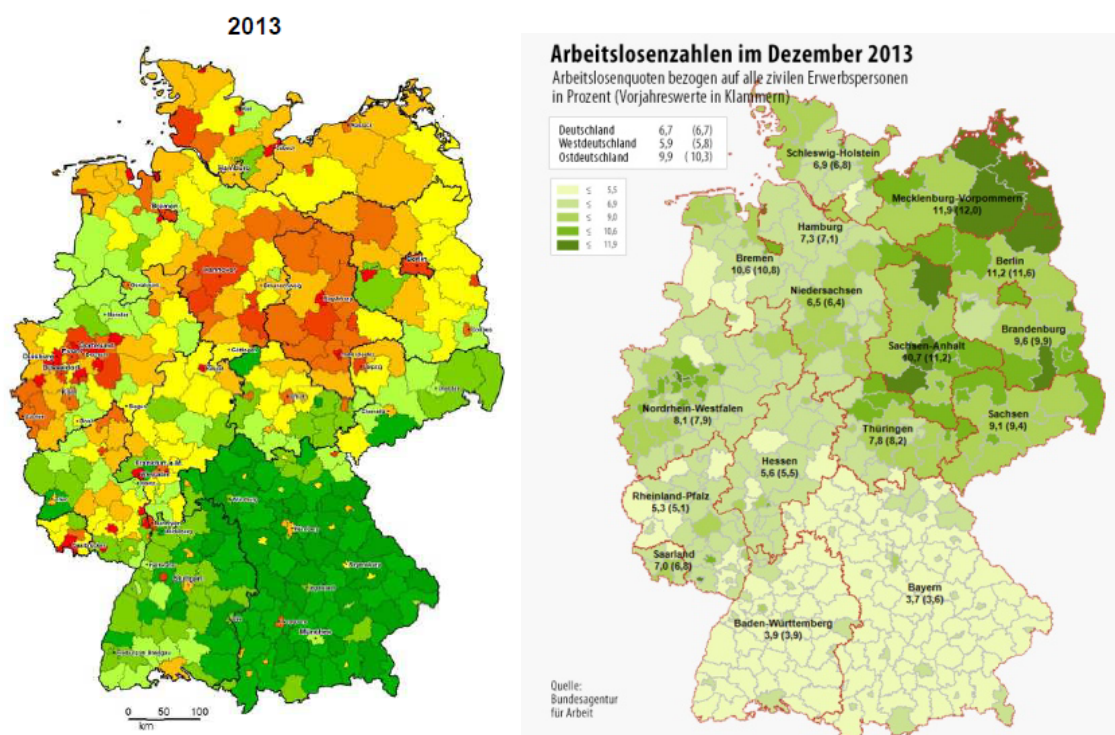


Figure 41: Debt situation and unemployment rate by rural district in Germany 2013

Source: left: Creditreform Wirtschaftsforschung (2013, p. 14), legend: red= high level, yellow= moderate level, green= low level of consumer over-indebtedness; right: Frankfurter Allgemeine Zeitung (2014), legend: light green <= 5.5% unemployment rate, dark green <=11.9.

### Gender:

The majority of debtors were male (64.3% vs. 35.7% female) and will predictably increase in 2013 by 30,000 to 4.23m (12.89% of >18 year old citizen), whereas the number of female debtors will decrease by 40,000 to 2.35m (6.86%). Within the last years there has been a moderate tendency of a decreasing number of male debtors (e.g. 13.55% in 2004) and increasing

## - Results: Development and causes of debt among consumers -

amount of female debtors (e.g. 6.09% in 2004) (Creditreform Wirtschaftsforschung, 2013). Long-term tendencies (male decrease, female increase of debt) resulted from changes in lifestyle and traditional roles in society; women were regarded as equal earners (e.g. 2.3m women were single parents) (Creditreform Wirtschaftsforschung, 2013). However, men remained the primary wage earners in households (65.2% in 2012 (Statistisches Bundesamt, 2013b)) and took responsibility in cases of indebtedness (Creditreform Wirtschaftsforschung, 2013). Women in relation to men were risk-averse, which resulted in lower debts (2012: 29,792 Euro; - 4,600 Euro to 2006 vs. male 37,605 Euro; - 1,700 Euro to 2006 (Creditreform Wirtschaftsforschung, 2013; Statistisches Bundesamt, 2013)). Men, living alone, were at high risk of becoming indebted (Creditreform Wirtschaftsforschung, 2013).

**Age:**

Regarding the age of indebted consumers in Germany, there was a considerable trend toward over-indebtedness among youth. In 2013 3.23% of debtors were under the age of 20 (12.45% of the citizens) which was an increase of 9.61 percentage points from 2004 at which time this group represented only 0.81% of the over-indebted population (see Table 57) (Creditreform Wirtschaftsforschung, 2013).

age group	<20	20-29	30-39	40-49	50-59	60-69	>70	Sum
2004	2.84%	10.35%	14.27%	15.10%	12.27%	4.58%	0.77%	9.74%
2005	4.52%	11.69%	16.11%	15.57%	12.35%	4.90%	0.76%	10.43%
2006	6.78%	12.57%	17.13%	15.52%	12.09%	4.90%	0.69%	10.68%
2007	7.77%	12.96%	17.93%	15.58%	11.89%	5.15%	0.70%	10.85%
2008	5.30%	13.45%	17.14%	13.60%	10.53%	5.37%	1.03%	10.11%
2009	7.74%	13.05%	15.38%	11.88%	9.04%	4.80%	0.93%	9.09%
2010	11.33%	13.95%	16.50%	12.50%	8.96%	4.74%	0.84%	9.50%
2011	14.45%	14.53%	16.56%	11.95%	8.34%	4.63%	0.87%	9.38%
2012	13.26%	16.09%	17.58%	11.91%	8.39%	4.72%	0.86%	9.65%
2013	12.45%	16.27%	18.13%	11.58%	8.60%	4.68%	0.90%	9.81%
Diff. 2012/2013	-0.81	0.18	0.55	-0.33	0.21	-0.04	0.04	0.16
Diff. 2004/2013	9.61	5.92	3.86	-3.52	-3.67	0.10	0.13	0.07
Debtors	<20	20-29	30-39	40-49	50-59	60-69	>70	Sum
2004	0.81%	15.13%	26.48%	30.42%	18.75%	7.22%	1.19%	100.00%
2013	3.23%	24.01%	26.17%	23.22%	15.32%	6.36%	1.69%	100.00%

**Table 57: debt quota by age group 2004-2013**

Source: adapted from Creditreform Wirtschaftsforschung (2013, p. 22f); 2013 estimated by Creditreform.

- Results: Development and causes of debt among consumers -

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However, debt among the young generation was characterized by 40% of high level of over-indebtedness and 60% of less/minor over-indebtedness, which indicates improved chances of eradicating debt, e.g. by improving skills and getting education within a professional career (Creditreform Wirtschaftsforschung, 2013).

Poor management of household budgets triggered the majority of over-indebtedness among the young debtors (see Table 62). Causes were:

- Lack of planning and control skills
- Indifference toward debt
- Lack of market, product and process knowledge, particularly in financial services, New Media and products of different type
- Naive risk assessment
- Overestimated solvency
- Over-insurance
- Inexperience in dealing with authorities (SCHUFA, 2013; see also Korczak & Pfefferkorn, 1992; Korczak, 1997; Lechner, 2009a; see Piorkowsky, 2004 for the extent and positive effect of training provided by the German government).

Due to their early stage in the family life cycle (as mentioned in section 3.4.1), the establishment of a household and the birth of a child also had major influences in causing debt in the group of young individuals.

Moreover, according to a study of Knobloch and Reifner (2013), individuals that had not graduated were faced with more over-indebtedness than people with A-levels. This effect was also confirmed by the attainment of professional education. Table 58 demonstrates that only 8% of the debt-advice seekers had A-levels, although they represent 36% of the German population.

## School leaving certificate and indebtedness 2009 - 2012

level	population			over-indebted				Ratio
	2009	2010	2011	2009	2010	2011	2012	2011
No graduation	5%	5%	4%	14%	16%	13%	13%	3.4
Certificate of Secondary Education	34%	32%	31%	50%	46%	48%	46%	1.5
General Certificate of Secondary Education	28%	29%	29%	29%	32%	32%	33%	1.1
Final secondary-school examinations (A-level)	34%	35%	36%	6%	6%	7%	8%	0.2

**Table 58: school leaving certificate and indebtedness**

Source: adapted from Knobloch & Reifner (2013, p. 39)

### Nationality:

According to a survey by Knobloch and Reifner (2013), foreign debtors, defined as not having the German nationality, increased from 9.9% to 17.9% although the share of this group within the German population was almost constant (approximately 9%, see Table 59). This finding was confirmed on a lower level (9.6%) by the survey of Statistisches Bundesamt (2013) compared to their previous data captured. To date, causes have not been investigated, but statistics provide additional information. Foreign debtors had a higher unemployment rate (+8.8 pp) and lower percentage of professional education (-28.3 pp) (Statistisches Bundesamt, 2013). Moreover, the causes of this group becoming over-indebted differed: self-employment (poor income earner + 5 pp) followed unemployment (+1.5 pp) as primary triggers. Comparatively, factors such as illness, addiction, or accident had been less than the native population (- 4.2 pp) (Statistisches Bundesamt, 2013).

### Nationality (not German) and debt-rate

	2006	2007	2008	2009	2010	2011	2012
Over-indebted	9.9%	14.0%	13.0%	15.1%	16.3%	19.1%	17.9%
Population	7.9%	8.8%	8.8%	8.8%	8.7%	8.8%	

**Table 59: Foreign nationality and debt situation in Germany**

Source: Knobloch & Reifner (2013, p. 36)

Additionally, the risk of becoming indebted was influenced by household size (one-person household vs. household with several children). In general, having children within the household did not mean a higher risk of becoming indebted (Knobloch & Reifner, 2013). However, based on statistics, households with

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three or more children faced over-indebtedness more often than the typical quota of the population (Knobloch & Reifner, 2013). Statistically, households with members having a migration background had more children (Statistisches Bundesamt, 2012), therefore were more impacted than the population at large. Knobloch and Reifner (2013) addressed the cost and necessity of child care combined with decreased potential to earn a living coupled with higher liquidity (training cost, cost of living). Additionally, factors such as inefficient management of the household budget could indicate an overwhelming situation for parents in a household with multiple children (Knobloch & Reifner, 2013). Single parents were also confronted with the need of high liquidity, a lack of time, and typically had less money in savings than groups in other demographics. Moreover, single parents household were often the consequence of separation and divorce, which causes additional costs and promotes the risk of indebtedness (Rau, Hoffmann, & Bock, 2013; Knobloch & Reifner, 2013).

Austria had similar indicators of over-indebtedness (see e.g. triggers and socio-demographic attributes in ASB Schuldnerberatungen, 2013). Austria also offered their citizens the possibility of personal bankruptcy and debt counselling respectively. Based on professional experience, Austria's mail-order businesses have similar characteristics to those in Germany, and consequently support the findings of Germany. According to a study of the association of debt counsellors in cooperation with the University of Vienna, each Euro invested in federal debt consulting in 2011 had a positive monetary effect of 5.3 Euro within the Austrian society and economy (Kompetenzzentrum für NPO der Wirtschaftsuniversität Wien, 2013). Mentioned causes were improvement of (health) status of the debtors and their members, long-term increase in income and life situation, reduction of unemployment pay, etc.

The causes of over-indebtedness were widespread and differed in relation to socio-demographic factors. The investigation of this question was part of the following propositions.

### 6.1.2 Proposition 2 – widespread causes of over-indebtedness

**Proposition 2:** The causes for over-indebtedness are widespread.

As mentioned in section 3.3.2, survey results showed that the “Big Five” had been the main triggers of over-indebtedness since 2008, as seen by debt counsellors. They were responsible for approximately 72% of over-indebtedness (see Table 60, similarly to findings of a survey by Knobloch and Reifner, 2013).

#### Main reasons for over-indebtedness (in percent)

Trigger	2008	2009	2010	2011	2012	2013
Unemployment	28.20%	28.50%	28.20%	26.90%	25.70%	25.90%
Divorce, death of partner	13.80%	14.00%	14.10%	14.00%	14.20%	14.20%
Illness, addiction, accident	10.70%	11.10%	11.60%	12.10%	12.70%	12.70%
Inefficient consumption behaviour	9.40%	10.20%	10.00%	11.30%	11.60%	11.70%
Poor income due to self employment	9.30%	8.60%	8.40%	8.30%	8.30%	8.30%
<b>Sum "big five"</b>	<b>71.50%</b>	<b>72.40%</b>	<b>72.30%</b>	<b>72.60%</b>	<b>72.50%</b>	<b>72.80%</b>
Other	28.50%	27.60%	27.70%	27.40%	27.50%	27.20%
Sum	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table 60: Main reasons for over-indebtedness 2008-2013

Source: translation of Creditreform Wirtschaftsforschung (2013, p. 29) where data is based on survey by the Federal Statistical Office 2008-2012; 2013 predicted by Creditreform

**Proposition 2** therefore **confirmed** that the primary causes for over-indebtedness were diverse and widespread. Moreover, regarding gender and age, there was a statistical difference depending on those characteristics.

According to the analysis of Creditreform Wirtschaftsforschung (2013), both a causation and correlation existed between the unemployment rate and the over-indebtedness quota (see Figure 42). An increase of the over-indebted quota could be ascertained after 12-24 month of becoming unemployed. Currently, the national unemployment compensation is reduced after 12 months, which causes a decline in the available expendable income of the household and increases the risk of financial struggles. A statistical adjustment of 12 month to the unemployment rate led to a statistically significant ( $p < 0.05$ ) correlation of

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0.71 between the annually ascertained over-indebted quota and unemployment rate (see Figure 42).

#### Indebtedness quota and unemployment rate 2004 - 2013

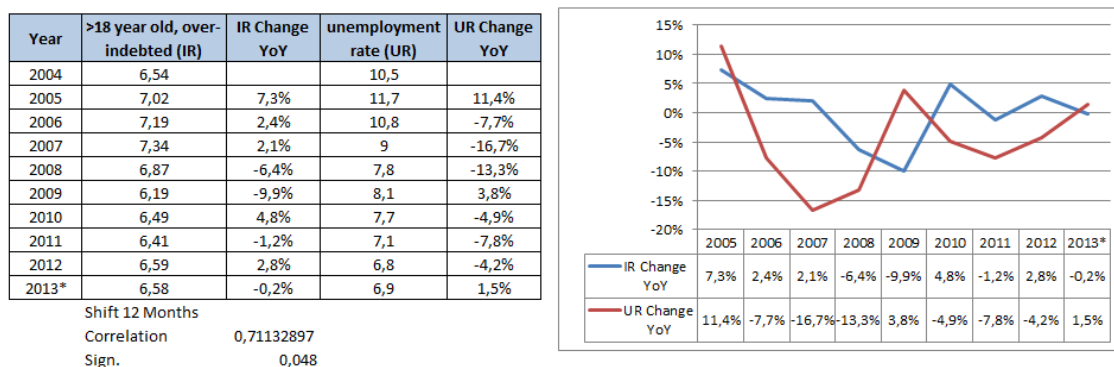


Figure 42: Indebtedness quota and unemployment rate 2004-2013

Source: Creditreform Wirtschaftsforschung (2013) for number of over-indebted people (IR = indebted rate) and Bundesagentur für Arbeit (2014) for number of average unemployment rate (UR = unemployment rate); 2013 predicted by Creditreform

However, Knobloch and Reifner (2013) summarized the causes of over-indebtedness by arguing that an inappropriate lifestyle was not the primary reason for over-indebtedness. Rather, the authors found that critical occurrences to people were due to their professional background or other circumstances left them less able to deal with negative events. Unemployment and its negative effects had a particularly significant impact on over-indebtedness (see Figure 42). Regarding the current occupation of debt-advice seekers, individuals employed as civil servants were underrepresented (e.g. 0.3% in the survey of Knobloch and Reifner (2013) whereas this group represents 2.9% of the German population). This data reiterates the effectiveness of a stable income as a means of debt prevention and highlights unemployment as a main trigger for over-indebtedness and shows the on-going influence of it. The research illustrates once again, why the German government tries to do as much as possible to improve the economy.

As previously mentioned, mental health is also impacted by debt, which can cause stress, anxiety, and depression. The official statistics about the “Big Five” (see Table 60) allows only one trigger of over-indebtedness per debtor; therefore, the possible combination of several effects is disregarded. Thus,



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unemployment might be underrepresented where an illness or addiction could be the outcome of long-lasting unemployment. This finding was supported by the interviews with debt counsellors. They emphasized the importance of having a job. Financial stability notwithstanding, employed individuals have a better sense of self-esteem and experience better mental health in the long-term (see 3.3.1).

When viewed against the background of the mail-order industry, it is significant to note that the primary causes of over-indebtedness had a different impact. Table 61 demonstrates the main triggers of over-indebtedness and the resulting debts within different industries according to a 2011 survey of 74,000 debt counsellor's advice seekers. For example, if personal over-indebtedness was caused by bad management of the household budget, it led to an average debt of 896 € within the mail-order industry. This does not mean that the whole amount was lost, but it suggests that the industry had at least a gap in financial liquidity due to late receipt of payment.

### Average debts by trigger of over-indebtedness

	Sum	credit institutions	mail-order companies	public debtee	debt collection agency	telecommunication carrier	landlord	due to pay alimony	private individual	other debtee
<b>socio-economic characteristics</b>										
Unemployment	20,321	9,649	621	1,690	2,949	907	879	461	300	2,866
Divorce / Separation	40,251	26,841	602	1,745	4,352	655	865	647	766	3,777
Sickness or illness	24,245	13,268	574	1,905	2,732	837	853	428	482	3,166
Bad management of the household budget	20,507	10,260	896	1,462	2,012	1,316	1,058	288	294	2,921
Damage claims due to liability	/	5,372	841	18,725	1,718	2,396	612	149	413	/
Ignoring social benefits entitled to	12,950	4,739	236	2,291	1,448	388	876	129	149	2,694
poor income earner	82,791	35,504	341	15,850	6,137	534	1,617	510	1,551	20,747
Other	23,111	8,428	633	4,443	3,413	998	743	286	446	3,722
Inappropriate mortgage	130,966	112,165	248	1,906	6,515	192	323	123	1,290	8,204
Obligation to pay as a guarantor	46,385	28,211	533	2,834	5,511	624	822	106	1,028	6,716
Birth of a child	17,450	9,765	579	1,227	1,761	929	793	278	119	1,999
Inadequate credit and guarantee advice	34,028	25,852	371	926	2,811	530	608	143	431	2,355

**Table 61: average debt by trigger of over-indebtedness**

**Source: Survey among 74,000 people seeking debt counsellor's advice (Statistisches Bundesamt, 2013)**

Again, depending on gender and age of the debtors, both the causes differed and the mail-order industry was affected differently regarding the average debt. As demonstrated in Table 62 women in general and people aged 35 to 65 were more affected by mail-order debt.

## - Results: Development and causes of debt among consumers -

**Trigger of over-indebtedness in relation to gender and age**

socio-economic characteristics	male	female	Age							
			<20	20-25	25-35	35-45	45-55	55-65	65-70	>70
Sample size	37,215	36,586	193	5,343	19,399	18,026	17,757	9,103	1,878	2,102
Unemployment	29.0%	24.9%	21.8%	29.5%	31.3%	27.3%	27.0%	24.3%	11.4%	3.2%
Divorce / Separation	10.2%	17.7%	3.1%	3.8%	9.5%	18.2%	17.6%	13.9%	14.0%	14.3%
Sickness or illness	14.2%	10.0%	4.1%	6.7%	9.3%	11.2%	14.8%	17.2%	16.3%	12.4%
Bad management of the household budget	10.8%	11.7%	20.7%	20.7%	15.9%	9.4%	7.3%	7.0%	8.8%	12.4%
poor income earner	10.5%	6.1%	1.0%	1.4%	4.5%	9.1%	10.7%	12.6%	14.6%	9.1%
Obligation to pay as a guarantor	1.3%	3.8%	4.7%	1.9%	1.7%	2.4%	2.6%	3.5%	4.6%	6.9%
Inappropriate mortgage	3.8%	4.0%	0.5%	0.1%	1.4%	4.6%	5.6%	5.7%	7.0%	6.6%
Damage claims due to liability	0.6%	0.2%	2.6%	1.1%	0.6%	0.3%	0.2%	0.2%	0.2%	0.2%
Birth of a child	1.0%	2.4%	2.6%	4.8%	3.3%	1.4%	0.4%	0.2%	0.2%	/
Ignoring social benefits entitled to	0.4%	0.4%	/	0.7%	0.4%	0.3%	0.3%	0.4%	0.6%	1.2%
Inadequate credit and guarantee advice	2.9%	3.0%	0.5%	1.5%	2.1%	2.7%	3.0%	3.7%	7.7%	9.1%
Other	15.3%	15.7%	38.3%	27.9%	19.9%	13.0%	10.5%	11.4%	14.5%	24.5%
Ø debt at mail-order companies	430 €	766 €	402	543 €	635 €	649 €	667 €	595 €	545 €	

**Table 62: Trigger of over-indebtedness in relation to gender and age**

Source: Survey among 74,000 people seeking debt counsellor's advice (Statistisches Bundesamt, 2013)

In general, over-indebtedness was not caused primarily by deviant behaviours such as unemployment, divorce, and failure in self-employment rather it is the risk of a modern society like Germany (see also section 3.3.1). Lechner (2009a, p. 53) described this circumstance as “industrial accident of everyday life” which represented about 50% of the over-indebted population (“Victims of modern biographic risks” (Lechner, 2009a, p. 67)). With the exception of being employed as a civil servant, very few individuals are protected against unemployment and respectively failure of self-employment. In addition to this pervasive risk, family breakdown and a lack of financial literacy were named as principal causes of over-indebtedness (“debtors with orientation problems” (Lechner, 2009a, p. 67)), along with naïve financial behaviour resulting in consumers who slowly lost sight of their financial status (approximately 42% according to Lechner, 2009a, p. 53). The remaining minority of debtors (8%) were overwhelmed with their financial situation due to deficient financial skills, lack of resources, and living in “everyday disarray” (Lechner, 2009a, p. 54). Briefly described, this segment of the population suffers from multiple stresses constituting the group of “debtors with persist consulting need” (Lechner, 2009a, p. 67).

## 6.2 Results: Perception of debt

Following the outcome regarding the development and causes of becoming over-indebted, it is necessary to understand individual perspectives. An exploration of thought processes regarding debt should aid in learning the answer to the question of why certain individuals engage in specific behaviour (investigated in research question 3).

Regarding current advertising, the opportunity to receive credit is ubiquitous. For instance, during the Christmas season of 2013, Media Markt – a well-known electronic (mail-order) retailer whose slogan is “Media Markt – I am not stupid!” - offered a payment plan with minimal instalments (33 months with 0% interest rate, see Figure 43). This ad suggests that “I have to be stupid” to not take advantage of consumer credit while earning interest on my bank account and “almost everything is possible with small instalments”.



Figure 43: Ad of Media-Markt offering consumer credit with 0% interest rate

Source: Brochure November 2013

During interviews, debt counsellors mentioned that their over-indebted clients were seduced by the lure of the low monthly payments offered by mail-order and retail companies (consistent with findings of “temporal reframing” effect (Gourville, 1998) and the hyperbolic time discounting (see 3.3.3)). Occasionally, their clients forgot to make payments because the arrangement lasted for several years although the product might in some cases not being workable anymore. Several retailers also offered “get it now – pay in a year” agreements, which resulted in over-indebted clients who failed to recall the payment due date.

- Results: Perception of debt -

In order to gain insight into the current perception of consumers the following research question was investigated.

**Research Question:** How is debt perceived among German over-indebted consumers?

The questionnaire posed three questions designed to investigate the perception of debt and payment behaviour regarding invoices.

**6.2.1 Proposition 3 – expected perception of increased debt**

**Proposition 3:** There will be a uniform expectation about increasing debts in Germany among over-indebted German consumers.

**Question 1:**

In general, I think having unpaid debts have increased in Germany.

[PD\_2\_12\_N]

agree:   1  :   2  :   3  :   4  :   5  :   6  :   7  : disagree

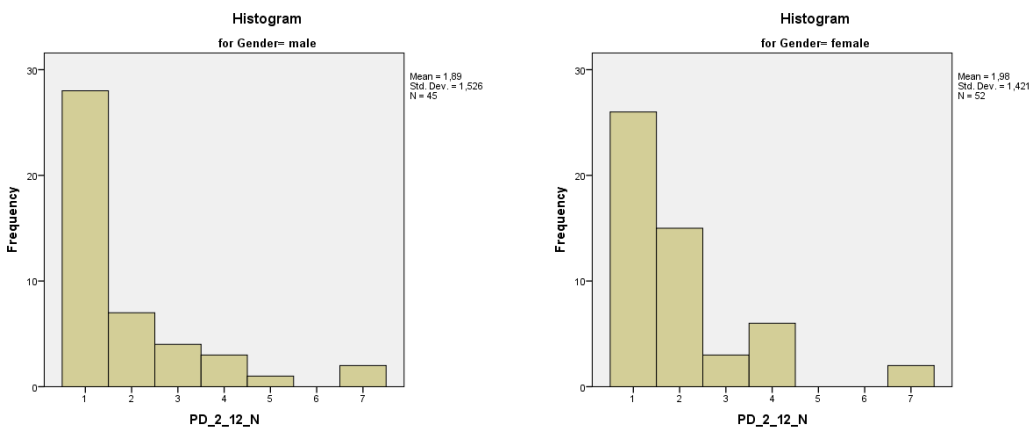


Figure 44: perception of increase of unpaid debts (not-imprisoned sample)

Legend: 1 = agree; 7 = disagree

## - Results: Perception of debt -

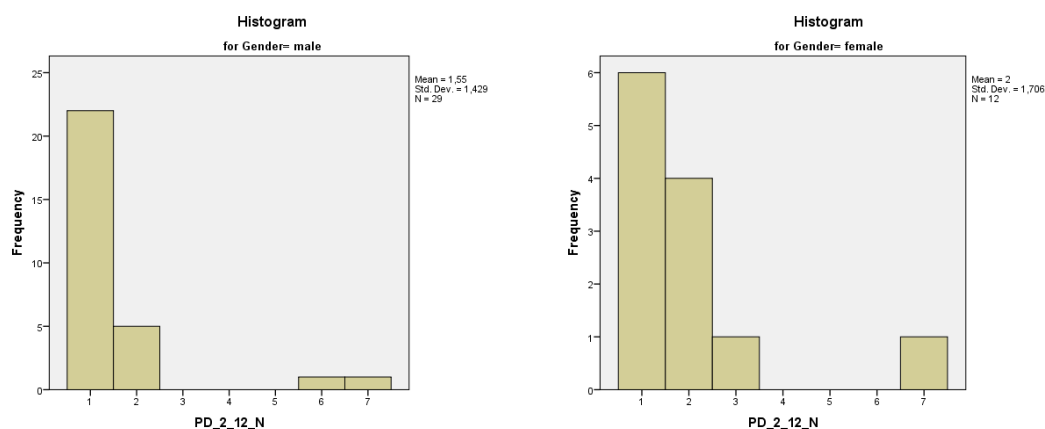


Figure 45: perception of increase of unpaid debts (imprisoned sample)

Legend: 1 = agree; 7 = disagree

As both Figure 44 (not-imprisoned group) and Figure 45 (imprisoned) demonstrate, the respondents strongly agreed that unpaid debts in Germany had increased. By trend, respondents under 40 years of age agreed more often to an increase (mean 1.52) than those aged 41 to 50 (mean 2.12) and greater than 50 (mean 2.41), demonstrated by a significant weak correlation (-0.245\*\*). Results by gender show that men believed more strongly than women that debt had increased (expressed by the mean), but a statistical difference was not confirmable (Mann-Whitney U test  $p = .0385$  respectively  $p=0.112$  for the imprisoned sample). Moreover, the imprisoned group did not differ from the not-imprisoned (Mann-Whitney U test,  $p = 0.132$ ).

Different studies concluded that due to changes in the population's attitude towards credit, consumers were more willing to use credit to finance current consumption (Chien & Devaney, 2001) which led to growth regarding its usage (e.g., Canner & Cynrak, 1986; Godwin, 1998; Norton, 1993). Lea, Webley, and Levine (1993) already referred in 1993 to the possibility of a growing 'culture of indebtedness.' Debt and credit have something common: "the fact of owing something to someone else" (Wärneryd, 1999, p. 55). However, as Lea et al. (1993) stated, debt and credit cannot be regarded as synonymous because an important psychological distinction exists between the two. Credit implies the assumption that repayment is within the borrower's means at all times and denotes borrowing money over time (e.g. house mortgages) (Lea, Webley, & Levine, 1993). Lea, Webley, & Levine (1993) emphasized:

## - Results: Perception of debt -

“In contrast, ‘debt’ implies an obligation that the borrower is either unable to discharge or is trying to avoid discharging, at least at the time when it should be discharged. Thus credit implies a willing lender (often, indeed, the loan is made on the lender’s initiative) while debt implies an unwilling lender” (p. 86).

Furthermore, in the German language, a linguistic corollary exists between debt (German “Schuld”) and being responsible, to be at fault (German “schulden”) which directs over-indebtedness in a causal connection of individual fault (Lechner, 2009a; Backert & Lechner, 2000). Therefore indebtedness in Germany has a morally normative meaning and is regarded as a taboo topic with elevated stigmatizing potential (Lechner, 2009a). However, the findings of Bender et al. (2013) demonstrate that credits (selected funding) were socially accepted and possibly not regarded as debts – thus normal (Bender, Hollstein, Huber, & Schweppe, 2013). Rau et al. (2013) state that the instalment purchase or financing by way of credit remained important policy options for the purchase of consumer goods. Thus, establishing longer-term loans is socially desirable and normal. However, payment obligations were perceived as problematic if the counter-financing sustainably faltered and the liabilities were or could no longer be fulfilled.

### 6.2.2 Proposition 4 – unpaid invoices are not regarded as normal

**Proposition 4:** There will be a uniform negative tenor about the debt-situation (“unpaid invoices are not normal”) in Germany among German over-indebted consumers.

#### Question 2:

I think having unpaid invoices of mail-order companies are normal.

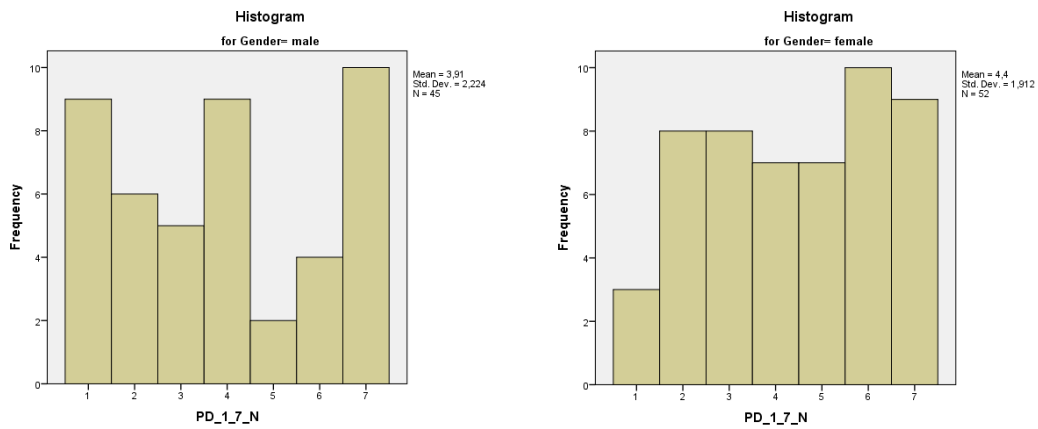
[PD\_1\_7\_N]

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

Again, both imprisoned and not-imprisoned over-indebted consumers were investigated. In order to see whether there were gender specific differences

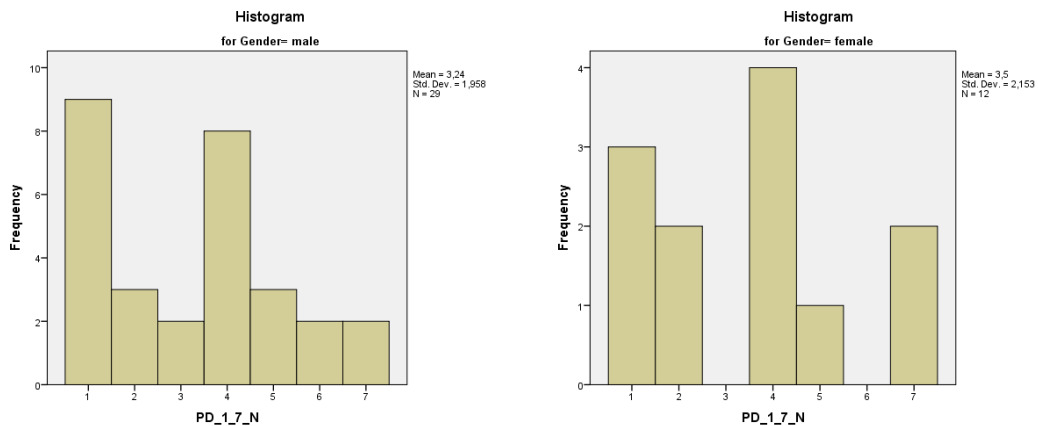
## - Results: Perception of debt -

these subgroups were treated separately (see Figure 46 for not-imprisoned consumers and Figure 47 for imprisoned).



**Figure 46: perception of unpaid invoices at mail-order companies (not-imprisoned)**

**Legend: 1 = agree; 7 = disagree**



**Figure 47: perception of unpaid invoices at mail-order companies (imprisoned)**

**Legend: 1 = agree; 7 = disagree**

Both figures above demonstrate the heterogeneous perceptions about the normality of unpaid invoices of mail-order companies. Regarding the mean value of the data, women had a higher tendency of regarding it as non-normal than men. A correlation between those three questions and past behaviour was not statistically valid measurable ( $p=0.479$ ;  $0.843$  and  $0.083$ ). That suggests that the act of former payment had no connection to the current perception of debt and unpaid invoices situation in Germany. This conclusion could also be held regarding the future – no correlation between those questions and further

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payment intention was measurable (questions covering direct measure of payment intention: I\_D\_1\_4\_N; I\_D\_2\_23\_N; I\_D\_3\_36\_N).

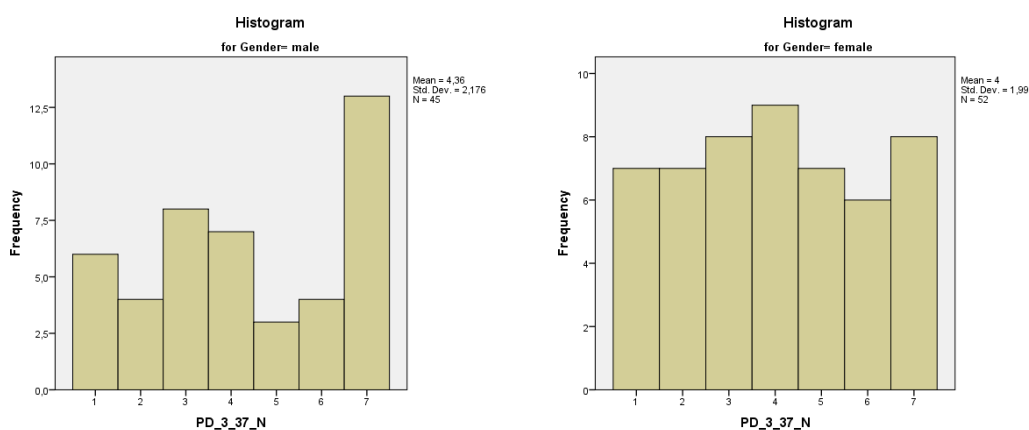
Moreover, in the subpopulations women and men did not differ statistically in their perception as demonstrated by a Mann-Whitney U test ( $p = 0.269$ ). This test again showed the tendency of men towards the consideration of unpaid invoices as normal. Further group specific tests were conducted but failed to deliver a statistically valid separation: mail-order orders within 12 month vs. not (Mann-Whitney  $p=0.218$ ); open debts at mail-order companies yes vs. no (Mann-Whitney  $p=0.141$ ); professional training yes vs. none (Mann-Whitney  $p=0.596$ ).

The imprisoned group had the same uniform characteristics for gender as the not-imprisoned group (Mann-Whitney  $p=0.724$ ). However, investigation regarding differences between the group imprisoned and not-imprisoned led to a statistically valid result of differentiation (Mann-Whitney  $p=0.029$ ). That data indicates that imprisoned consumers differed in their perception that unpaid invoices were more normal than for not-imprisoned consumers.

**Question 3:**

I think not paying invoices is quite normal in our society. [PD\_3\_37\_N]

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree



**Figure 48: perception of unpaid invoices in German society (not-imprisoned)**

**Legend: 1 = agree; 7 = disagree**



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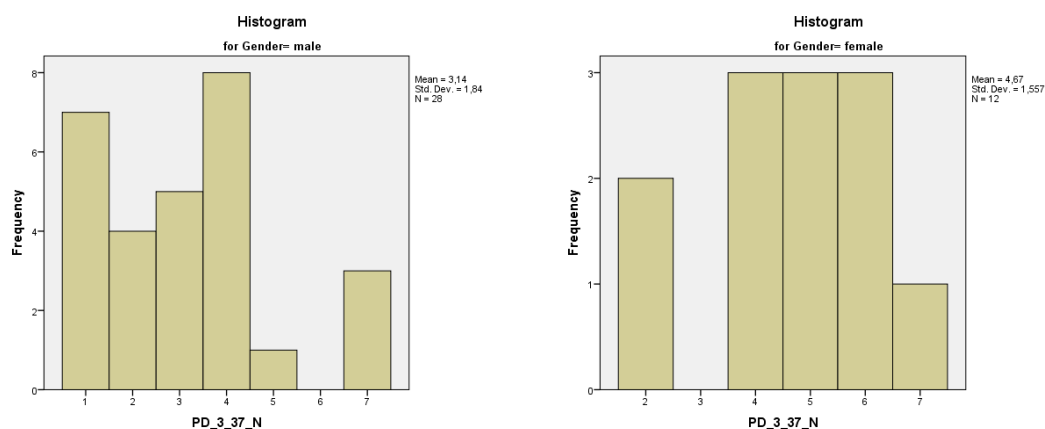


Figure 49: perception of unpaid invoices in German society (imprisoned)

Legend: 1 = agree; 7 = disagree

Within the not-imprisoned group (Figure 48) there was no statistical difference between the perception of men and women (Mann-Whitney  $p=0.404$ ). The tendency of perception showed a change in the results to question 2 – women had the tendency to believe that having unpaid invoices was normal. That would mean that there was a difference in the perception of unpaid invoices in general and unpaid invoices at mail-order companies. This was also demonstrated by a weak correlation of 0.246 (Spearman; significant with  $p=0.015$ ). However, the question was formulated with a “not” and reverse coding in relation to the first question. Perhaps this different approach had a moderate effect on the outcome in relation to question 2 and should be considered in the interpretation of this data.

Although the imprisoned group (see Figure 49) had a statistical difference in the perception between women and men (Mann-Whitney  $p= 0.011$ ), the correlation to the outcome of question 2 was also weak (0.219) and not significant ( $p=0.174$ ). The imprisoned and not-imprisoned group did not significantly differ statistically (Mann-Whitney  $p=0.161$ ).

The perception of an increase in unpaid debts was explicit. However, the ambivalence shown by the answers regarding unpaid invoices suggests that the observed population did not consider unpaid debts as not normal. Therefore **proposition 3** should be **confirmed** and **proposition 4** had to be **rejected**.

### 6.3 Results: Investigation of payment intention using the TPB

Learning the primary causes of over-indebtedness and understanding the overall perception of debt among consumers should provide a context in which to comprehend the current situation of over-indebted consumers in the German mail-order industry. More importantly, the question of what influences future payment intention and behaviour of the individual must be addressed.

**Research Question:** With reference to the theory of planned behaviour, what are the influences of beliefs, attitudes, subjective norms, and perceived behavioural control towards the intention on debt payment on time?

The statistical validity process of applying and calculating the model with its extension was presented in detail in chapter 5. The following overview summarizes the findings regarding the propositions in form and content.

#### 6.3.1 The overall TPB model

Despite the relatively small size of the sample, using PLS-SEM led to an outcome, which underlies statistical relevance. Consistent with the TPB's predictions, 1) intentions were based on attitudes (path coefficient = 0.1692), subjective norms (0.3500), and perceived behavioural controls (0.3050) and 2) attitudes were associated with behavioural beliefs (path coefficient = 0.3503), norms were associated with normative beliefs (0.4479), and perceived control with control beliefs (0.2911). As the perceived behavioural control construct contributed significantly to payment behaviour, it demonstrated its superiority to the TRA. By the addition of the PBC construct  $R^2$  increased from 0.2849 to 0.3580 (+0.0631). This increase is consistent regarding absolute to the finding in meta-analysis (e.g. Armitage & Conner, 2001 with  $R^2$  added of +0.06 on average). The outcome compares favourably with the previous studies as demonstrated in the meta-analysis of Armitage and Conner (2001) (see Table 36 in section 5.3.1).

The main constructs of the TPB were measured directly (propositions 5 to 7) and via underlying beliefs (propositions 8 to 10). Additionally, extensions, as outlined in section 3.4.4.5 (moral norms) and 3.4.4.6 (past behaviour), were

## - Results: Investigation of payment intention using the TPB -

applied. Their expected influence on payment intention on time was mapped in propositions 11 and 12 (see Figure 50).

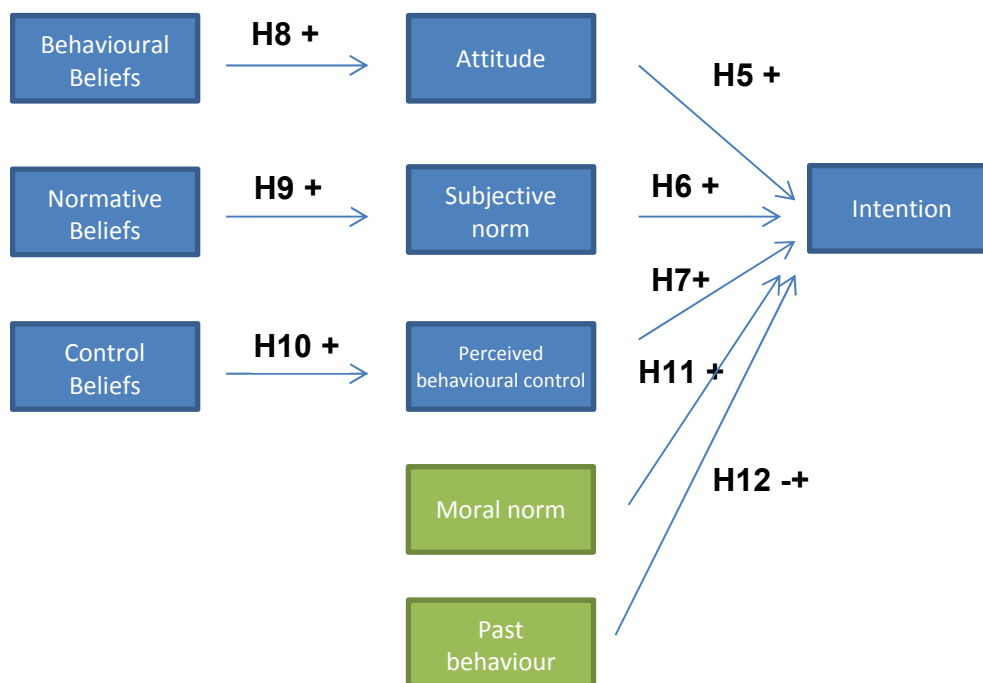


Figure 50: Propositions and expected influences within the application of the TPB

Green background demonstrates additional elements to the original TPB model.

The next sections provide deeper insights in the utility of the specific TPB constructs.

### 6.3.2 Direct measures of the TPB

**Proposition 5:** Attitude of paying the debt on time and the behavioural intention to do so will be positively related and statistically significant.

Attitude towards payment behaviour of the not-imprisoned sample had a weak statistically significant positive impact on payment intention (path coefficient 0.1692,  $p < 0.1$ ,  $t = 1.81$ ); therefore, **proposition 5** had to be **confirmed**.

The attitude component was measured with six bipolar adjective scaled questions (e.g. honest | dishonest). As outlined in section 5.2, in order to provide statistical reliability and validity, only four questions (items) remained in the final measurement model of attitude. As suggested by Ajzen (2006), the item pair “bad vs. good” was used to provide an overall evaluation of payment

intention. The mean of 6.38 with a standard deviation (SD) of 1.196 (range 1 to 7 for all direct measures) indicates the overall positive evaluation of payment on time for a mail-order invoice. The other three questions also support this view: payment of invoices was regarded as honest (mean 6.46, SD 0.954), useful (mean 6.16, SD 1.288), and important (mean 6.39, SD 1.226), for the sample population. In general, the respondents genuinely intended to pay their upcoming mail-order invoices on time. This was measured by three questions (mean 6.41, SD 0.89, range 1 to 7), both the correlation of their means ( $r = 0.264$ ,  $p < 0.009$ ), and the abovementioned impact of attitude on intention was weak.

**Proposition 6:** Subjective norms of paying the debt on time and the behavioural intention to do so will be positively related and statistically significant.

Subjective norm was the strongest predictor of payment intention (path coefficient 0.3500,  $p < 0.01$ ,  $t = 3.27$ ), consequently **proposition 6** had to be **confirmed**.

The subjective norm component, or the perceived social pressure, was measured via three questions. Individuals who were important to the respondents and were therefore important for them were likely to believe that debts should be paid within the regular term (mean 6.09, SD 1.330). This was also demonstrated by the outcome of the question about the expectation of others that the respondents pay their mail-order invoices (mean 6.28, SD 1.312). Furthermore, people whose opinions they held in regard, paid likely their invoices (mean 5.87, SD 1.272). In sum, those three questions demonstrated a strong social pressure on the over-indebted consumers. The strong predictive utility of social norms for payment intention among the TPB constructs was further demonstrated by its highest statistical valid correlations (0.4978).

**Proposition 7:** Perceived behavioural control of paying the debt on time and the behavioural intention to do so will be positively related and statistically significant.

## - Results: Investigation of payment intention using the TPB -

Perceived behavioural control was another statistically significant predictor of payment intention (path coefficient 0.3050,  $p < 0.01$ ,  $t = 3.35$ ), thus **proposition 7** had to be **confirmed**.

PBC was also measured by three items. The first question – whether paying on time was possible or impossible for them – had a mean of 5.45 (SD 1.937). 47% of them answered with a 7 whereas 19% indicated that making future payments on time would not be possible (answer rating 1 to 3). Specifically, those respondents engaged in the second stage of the legal process, which involves insolvency consulting, mentioned a lowered possibility of payment (mean 4.40) than those in the debt consulting phase (mean 5.35), or those in the latter stage of the legal process (mean 5.62). This is accord with the second question, whether the payment decisions is completely up to them, where debtors in the insolvency stage reported lower possibilities (mean 4.87, SD 2.295 vs. mean 5.55, SD 2.016 of the whole population). The third question, if they wanted, they could truly pay the invoice, had almost the same structure in responses: those being in the insolvency consulting were less likely to be able to pay (mean 3.60, SD 2.1685 vs. mean 5.31, SD 2.176). In sum, these questions suggest a general possibility and evaluation of the likelihood of an individual paying future invoices. As a function of the stage in the legal process with its limitations (e.g. usually agreed payment plan) both the perceived and actual behavioural control will be limited.

Table 63 summarizes the confirmed propositions of the direct measures within the TPB (see also Table 50 for gender specific differences; descriptive statistics of each question in the appendix A-3.5 for male and A-3.6 for female).

Proposition	Status	Value	Validity
H5	Confirmed	0.169	*
H6	Confirmed	0.350	***
H7	Confirmed	0.305	***

Table 63: Outcome of the propositions concerning the TPB (not-imprisoned model)

Significance: \*\*\*  $< 0.01$ , \*\*  $< 0.05$ , \*  $< 0.1$ ; ns = not significant

## - Results: Investigation of payment intention using the TPB -

The propositions of the imprisoned sample population had to be rejected for perceived behavioural control on intention not being statistically significant. In general, the mean values of all questions covering direct measures of the TPB were lower than those of the not-imprisoned sample. Moreover, the higher standard deviations suggest a wider distribution of the responses. However, as outlined in section 5.5.1, no statistical difference between those groups could be measured. In detail, the attitude towards the behaviour was also positive (mean 5.75, SD 1.515), honest (mean 5.98), useful (5.95), and important (mean 5.90). Social pressure was comparable to the not-imprisoned sample. The difference in PBC was conspicuous, as already outlined in section 5.3.5, and demonstrated the moderated perceived control, likely due to inmates' current circumstance and lack of volition in making choices.

The model of the imprisoned sample population had a different outcome as recapped in Table 64.

Proposition	Status	Value	Validity
H5	Confirmed	0.410	**
H6	Confirmed	0.293	*
H7	Rejected	0.078	ns

Table 64: Outcome of the propositions concerning the TPB (imprisoned sample)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

In order to get deeper insights about the underlying beliefs of the main theoretical constructs, as explained in section 3.4.4, several questions were obtained. They built the basis for the propositions testing as outlined in the next section.

### 6.3.3 Belief based measures of the TPB

According to the theoretical framework, beliefs were measured by two corresponding questions (e.g. strength and evaluation; specified in section 4.4.3). The theoretically assumed multiplication provides information about the individual importance.

**Proposition 8:** The relationship between behavioural beliefs about paying the debt on time and the attitude towards the act to do that will be positive and statistically significant.

Behavioural beliefs and the attitude towards payment behaviour of the not-imprisoned sample had a highly significant positive relationship (path coefficient 0.3503,  $p < 0.01$ ,  $t = 3.55$ ), therefore **proposition 8** had to be **confirmed**.

As outlined in section 4.4.3, the measured beliefs were finally determined through the experience of debt counsellors who acted as a focus group. In retrospect, with regard to attitude, those questions could be centralized as “minimizing further risk.” Results show that the respondents could probably avoid or reduce aggravation by paying future invoices on time (mean 6.61, SD 1.229; range 1 to 7), which they regard as very good (mean 6.61, SD 0.604). This context resulted in belief AT\_B\_1 (mean 44.90, SD 9.282, range 1 to 49). Moreover, the respondents were aware of the risk of arrears fees and an added increase to their debts by not paying on time (resulting AT\_B\_3 with mean 47.12 and SD 5.028).

Getting a better overview about their financial status was regarded very important (mean 6.85). To achieve this by paying mail-order invoices on time was regarded as slightly likely (mean 5.48). This suggests that more suitable conditions could exist. The total of those three belief scores results with a mean of 129.58 (SD 20.38, range 3 to 147) suggested positive behavioural beliefs and concludes in a positive correlation with the attitude construct ( $R^2$  0.123).

**Proposition 9:** The relationship between normative beliefs about paying the debt on time and subjective norms will be positive and statistically significant.

Normative Beliefs demonstrated the strongest relationship among the belief constructs. The path coefficient of 0.4479 was highly significant ( $p < 0.01$ ,  $t = 5.41$ ), consequently **proposition 9** had to be **confirmed**.

Equivalent to the measurement of behavioural beliefs, normative beliefs were measured covering three peer groups and the correspondent motivation to

## - Results: Investigation of payment intention using the TPB -

comply. Amongst the three measured normative beliefs, SN\_B\_3 had the highest mean of 35.25 (SD 15.456, range 1 to 49), and demonstrated importance of his or her parents to the individual. 81.5% of the participants reported that their parents were extremely likely (responded a 6 or 7) to pay mail-order invoices on time (mean 6.04, SD 1.728). Moreover, 68.4% found it extremely likely that they would behave like their parents, when it concerned paying debts (mean 5.52, SD 1.895). This underscores the high level of parental influence on future payment behaviour. In contrast, the trend shows that when the respondents spouse / partner (mean 5.55), or close friend (mean 5.92) believes that a mail-order bill should be paid; the motivation to comply is different (see Figure 51). When it comes to payment, females by trend want to comply more frequently with what their spouse / partner thinks (mean 4.44, SD 2.146) than men (mean 3.63, SD 2.573). Moreover, the opinion of close friends regarding payment was more important for women by trend (mean 4.17, SD 1.917) than for men (mean 3.63, SD 2.047). A statistical differentiation test (Mann-Whitney U test) did not confirm those finding ( $p=0.138$  and  $p=0.151$ ). In contrast, by trend, men want to be more like their parents when it comes to payment (mean 5.80 vs 5.26 women; weak statistical valid ( $p=0.072$ ) through Mann-Whitney U test).

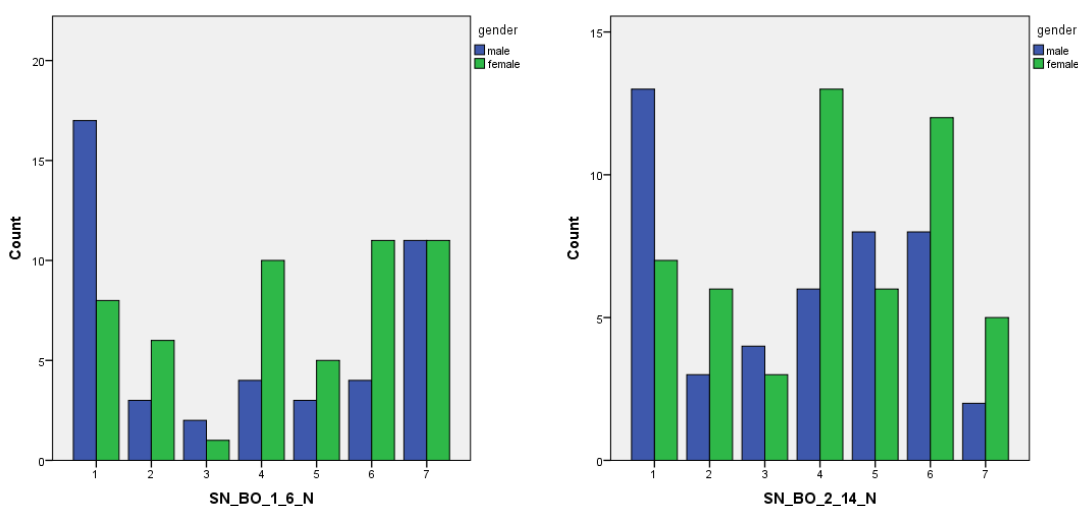


Figure 51: Influence / importance of spouse / partner and friends

Legend: SN\_BO\_6\_N "I want to do what my partner thinks I should do"; SN\_BO\_2\_14 "the opinion of my close friends regarding payment is important for me" | 1 = unlikely; 7 = likely"



The total of those three belief scores possess a mean of 83.22 (SD 33.43, range 3 to 147) suggested by trend positive normative beliefs, ending in significant positive moderate correlation with the social norm construct ( $R^2$  0.201).

**Proposition 10:** The relationship between control beliefs about having the resources to pay the debt on time and perceive behavioural control will be positive and statistically significant.

Control beliefs had a statistically valid relationship with its PBC construct (path coefficient 0.2911,  $p < 0.01$ ,  $t = 2.92$ ). Thus **proposition 10** had to be **confirmed**.

The debt counsellors mentioned the necessity of possessing a stable income under effective financial household management. This aspect of perceived behavioural control particularly addresses the avoidance of the main cause of becoming over-indebted – being unemployed. This approach seemed appropriate in the context of payment among over-indebted consumers. As mentioned in section 5.2.2, the utility of financial management training was regarded as heterogeneous and was not considered in the final model. 29.1% reported that financial training would be useless to plan for or pay mail-order orders and invoices. However, 29.2% agreed that such training would be extremely helpful. The resulting mean value of 4.00 and SD of 2.103 demonstrates the ambivalence of the respondents, and illustrates its possible utility. However, in case the respondents would have visited a financial training, they agreed on the positive affect on payment on time. The probable outcome of financial training and setting up a detailed payment plan, was regarded as useful (mean 5.31, SD 1.770) and would simplify paying one's mail-order invoices (mean 6.04, SD 0.883).

Unemployment was mentioned as the main reason for over-indebtedness by the interviewed debt counsellors and was supported by several statistics (sections 3.3.2.1 and 6.1.2). That would mean that individuals with a fairly paid employment (PBC\_B\_1, mean 37.29) and a regular, projectable income (PBC\_B\_4, mean 40.33), not temporary jobs, would allow paying on time. The

## - Results: Investigation of payment intention using the TPB -

high mean values demonstrate the utility and coverage of both views – debtors and counsellors.

The sum of the three remaining belief scores with a mean of 110.24 (SD 29.47, range 3 to 147) suggested by trend positive control beliefs, ending in significant positive weak correlation with the perceived behavioural control construct ( $R^2$  0.085).

Table 65 demonstrates the confirmed propositions of the direct measures within the TPB.

Proposition	Status	Value	Validity
H8	Confirmed	0.350	***
H9	Confirmed	0.448	***
H10	Confirmed	0.291	***

Table 65: Outcome of the propositions concerning the TPB (not-imprisoned model)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

The analyses of the beliefs of the imprisoned had by trend the same outcome as the above described not-imprisoned sample. The imprisoned beliefs had similar effects as the not-imprisoned sample (see Table 66).

Proposition	Status	Value	Validity
H8	Confirmed	0.558	***
H9	Confirmed	0.457	***
H10	Confirmed	0.438	***

Table 66: Outcome of the propositions concerning the TPB (imprisoned sample)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

#### 6.3.4 Additional constructs within the TPB and their utility

In order to answer propositions 11 and 12 - the effect of additional constructs to the TPB framework - suitable questions were added in the questionnaire and their effect was calculated (see section 5.6 for the not-imprisoned population and appendix A-3.8 for the imprisoned sample).

**Proposition 11:** The addition of moral norms will improve the strength of the model. This will be expressed through a higher  $R^2$  of the model.

The addition of moral norms led to a higher  $R^2$  of 0.4705 (vs. 0.3580) and therefore **confirmed proposition 11** for the not-imprisoned sample. The path coefficient of moral norms to intention was highly statistically significant 0.4175 ( $p < 0.01$ ). It had a significant influence on the prediction as expressed by the medium effect-size  $f^2$  value (see section 5.6.1). Moreover, it correlated best with intention ( $r = 0.5913$ ), which was in line with the findings of Conner and Armitage (1998). The substitutability effect of attitude with moral norms for payment behaviour was demonstrated by the insignificant path coefficient of attitude. This finding is supported by other research on moral behaviours (e.g. Chan & Bishop, 2013). As highlighted in section 3.4.4.5, moral norms could be regarded as personal norms and might demonstrate an additional kind of pressure on the debtors. Within the not-imprisoned group, debtors would feel guilty when they did not pay their mail-order invoices on time (mean 6.03, SD 1.410). It is against their moral principles (mean 5.79), and therefore would be morally wrong (mean 6.00). No measurable statistical difference was noted regarding gender, education level, open debts at mail-order companies, and current stage in the debt consulting process.

The moral norms of the imprisoned sample differed statistically from the not-imprisoned sample (Mann-Whitney U test  $p < 0.01$ ). Approximately 25% of the imprisoned debtors would not feel guilty for not paying on time in comparison to 8% of the not-imprisoned ones (see Figure 52, other two questions covering this construct was on a comparable level).

## - Results: Investigation of payment intention using the TPB -

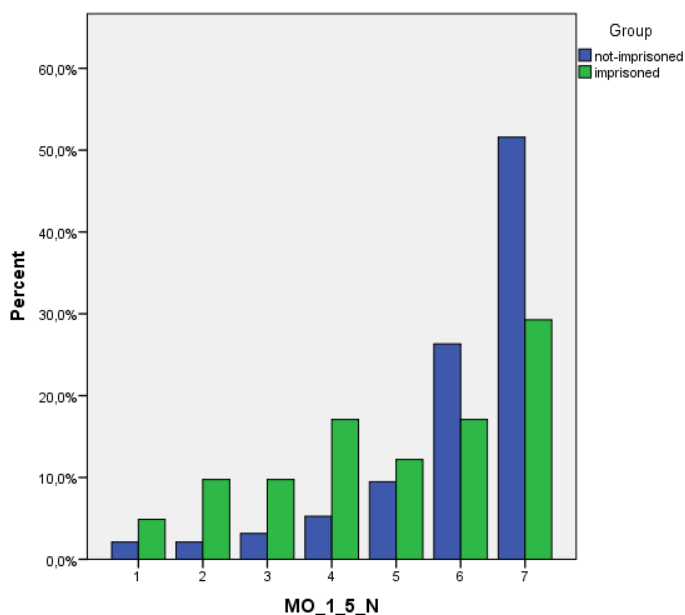


Figure 52: Comparison of feeling guilty if not paying the invoice

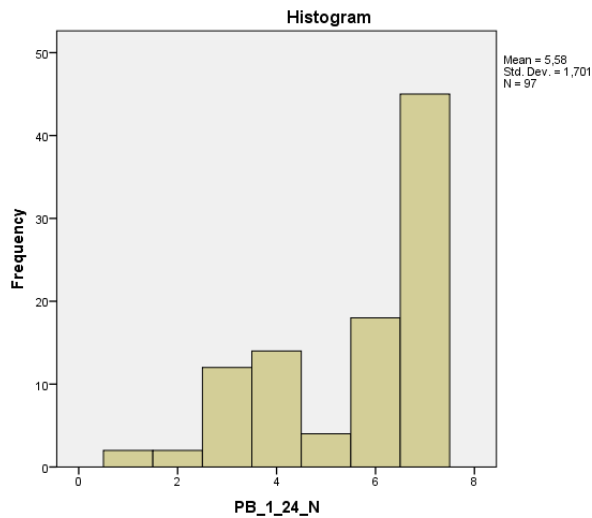
Legend: 1 = false, 7 = true.

The high correlation of moral norms and intention within the imprisoned sample ( $r=0.7298$ ) led to a highly significant path coefficient of moral norms to intention of 0.6173 ( $p<0.01$ ) and a higher  $R^2$  of 0.5936 (vs. 0.3854) and therefore **confirmed proposition 11** also for the imprisoned population.

**Proposition 12:** The inclusion of past behaviour will not significantly improve the strength of the model. This will be expressed through an unchanged  $R^2$  of the model.

The inclusion of past behaviour in the not-imprisoned model led to a higher  $R^2$  of 0.3953 (vs. 0.3580), and therefore **rejected proposition 12**. The effect was small as expressed by the small  $f^2$  value. The path coefficient of past behaviour to intention was statically significant 0.2477\*\*. Past behaviour was assessed by one question covering payment behaviour that had occurred within the last 12 months (see Figure 53).

## - Results: Investigation of payment intention using the TPB -



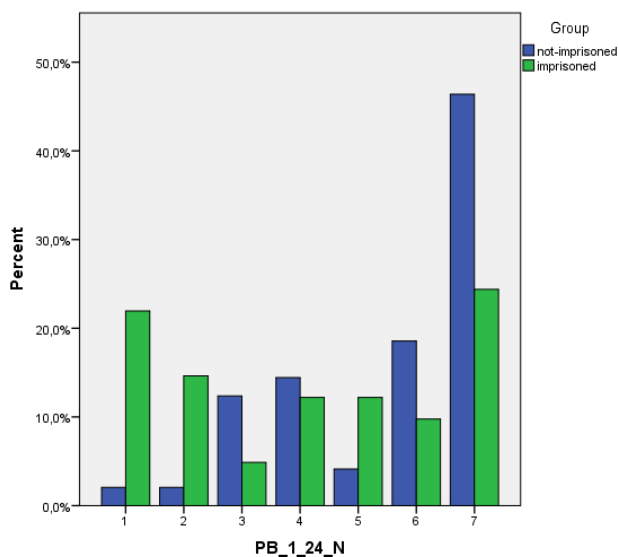
**Figure 53: Payment behaviour at mail-order companies with the last 12 month**

**Legend: Pay every invoice with the regular term of payment (1 = never, 7=always)**

A statistical difference between people being unemployed and having a job could be verified (Mann-Whitney  $p=0.002$ ). Gender specific differences could not be demonstrated via statistical tests (Mann-Whitney  $p=0.283$ ). The moderate correlation of 0.4085 between intention and past behaviour demonstrated the influence and utility of past behaviour. However, compared to moral norms this effect could be regarded as small.

According to the moral difference, past behaviour also showed a statistically significant difference (Mann-Whitney  $p=0.000$ ) between the imprisoned and the not-imprisoned sample (see Figure 54). As previously mentioned, no available information existed regarding the causes of imprisonment; therefore, no proven argumentation can be provided.

## - Results: Investigation of payment intention using the TPB -



**Figure 54: Comparison of past payment behaviour**

**Legend: Pay every invoice with the regular term of payment (1 = never, 7=always)**

The inclusion of past behaviour also led to a higher  $R^2$  of 0.4946 (vs. 0.3854) and therefore **rejected proposition 12** also for the imprisoned population. The weak correlation of past behaviour and intention ( $r=0.1985$ ) led to a highly significant path coefficient of moral norms to intention of 0.3491 ( $p<0.01$ ).

### 6.3.5 Summary of the TPB-model (not-imprisoned)

The classic TPB model for the not-imprisoned over-indebted consumers had significant values for their path coefficients (see Figure 55) and confirmed propositions 5 to 10 (see Table 67). Moreover, the effect of each construct was measured (see section 5.3) and led to the conclusion that the TPB was superior in relation to the TRA for this study because of the positive effect of the additional PBC construct.

- Results: Investigation of payment intention using the TPB -

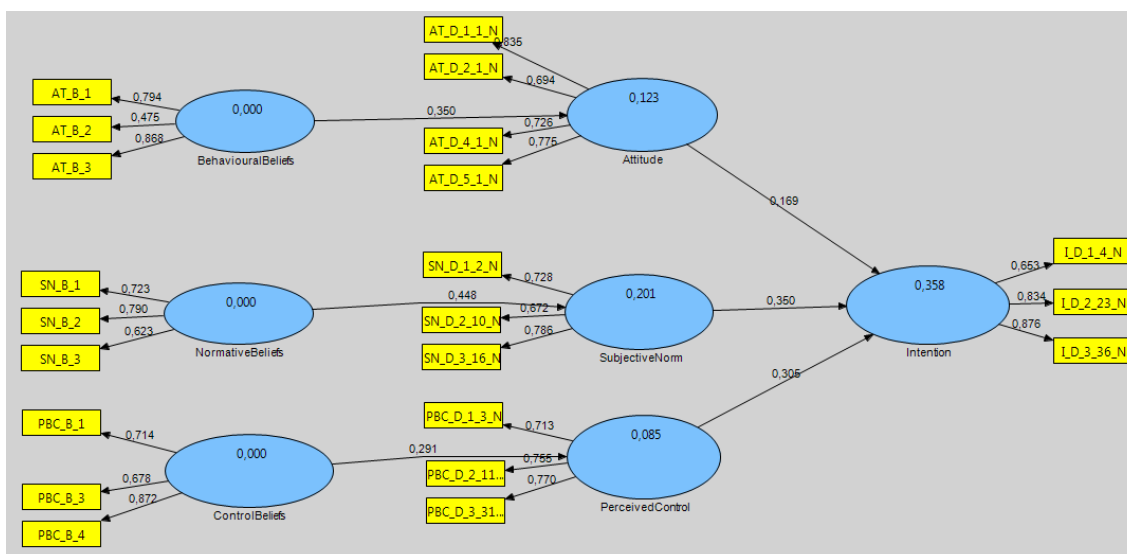


Figure 55: Results of the TPB (group not-imprisoned)

Proposition	Status	Value	Validity
H5	Confirmed	0.169	*
H6	Confirmed	0.350	***
H7	Confirmed	0.305	***
H8	Confirmed	0.350	***
H9	Confirmed	0.448	***
H10	Confirmed	0.291	***

Table 67: Outcome of the propositions concerning the TPB (not-imprisoned model)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

As highlighted in section 5.5.2, there was a statistically significant difference between over-indebted men and women regarding payment intention. Path and corresponding proposition changed subject to gender – statistically valid path could change to not-significant paths and vice versa (e.g. perceived control -> intention). This means that the above represented propositions confirmation is valid for the comprehensive model although gender specific differences exist.

The extended model, with the positive impact of both moral norms (proposition 11 confirmed) and past behaviour (propositions 12 therefore rejected) is demonstrated in Figure 56 for the not-imprisoned group.

- Results: Investigation of payment intention using the TPB -

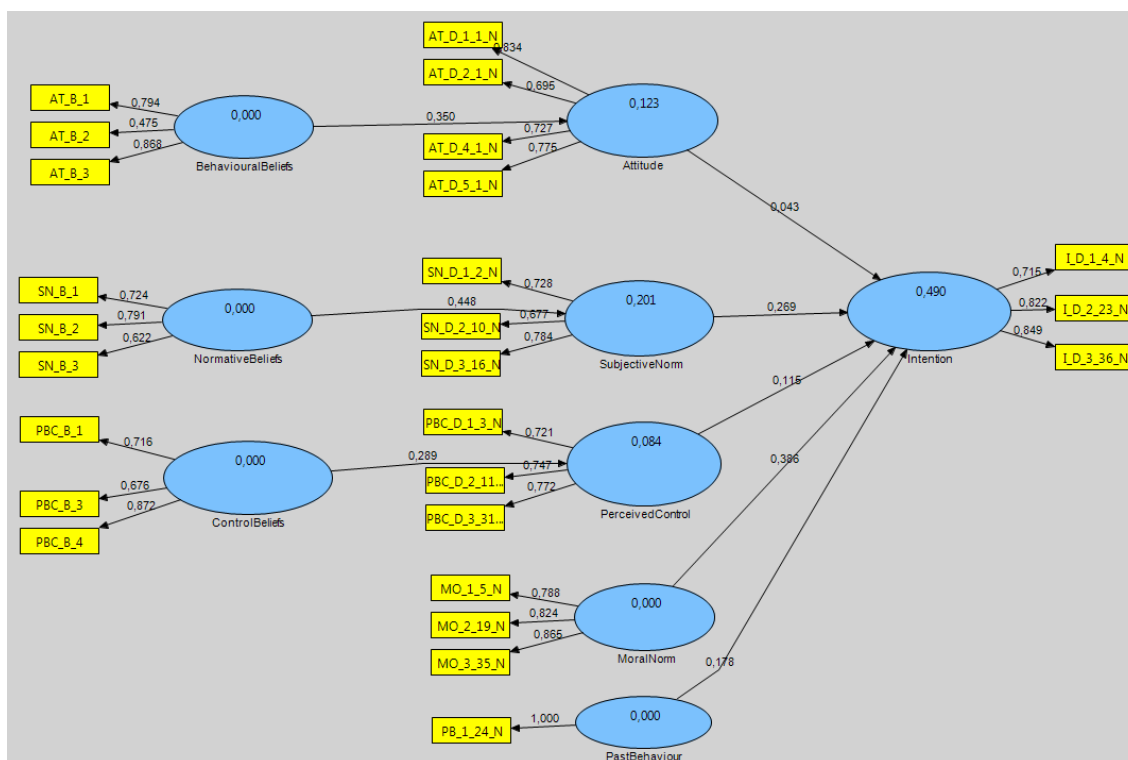


Figure 56: Results of the extended TPB model (group not-imprisoned)

In sum, for the comprehensive model almost each proposition was confirmed (exception past behaviour). Investigation about gender and the situation of being imprisoned demonstrated the potential of this study for additional investigation: gender had an enormous influence towards payment intention. Moreover, having more information about the consumer, such as moral norms or past behaviour, had a positive effect on the accuracy of the prediction and explanation. Although the impact of past behaviour was not as high as the effect of moral norms, it added value to the outcome.

The answer to the fourth research question will be given in the following chapters. The survey, based on the TPB, provided a deeper understanding of payment behaviour of over-indebted consumers (please see chapter 7). The managerial and practical implications of this outcome for the German mail-order industry will also be discussed in chapter 8. Additionally, the outcome of this study was reviewed and supported by post survey interviews with debt counsellors (please see chapter 8 and 9).



## 6.4 Summary

This chapter describes the outcome of the analytical process as yet. The number of indebted consumers in Germany consistently remained at a high level. Depending on factors like age, gender, and habitation, the total of debtors could increase or decrease by comparison to the mean. The “why?” led to the “Big Five” being responsible for about 3 of 4 “over-indebted careers”: unemployment, divorce, illness or accident, inefficient consumption behaviour and poor income due to self-employment. Again, this data demonstrated the influence of external factors like development of the employment market and the individual’s personal and professional background. The consensus of debtors was that debts in Germany were increasing. However, this group was ambivalent concerning unpaid debts at mail-order companies.

After examining the existing perception about debt, the outcome of the first application of the TPB with the mail-order industry was clarified. Two important groups of debtors faced with different circumstances – imprisoned and not-imprisoned – were analysed. The TPB demonstrated the influence of its components to the prediction of payment intention. Again, it showed the impact of gender and available information about the consumer on the accuracy of the prediction. Moreover, with the goal to explain this payment intention, the expected underlying beliefs were analysed and the responses interpreted. In sum, the findings suggest that there is not only one model that predicts payment intention and future predicted payment behaviour, but rather specific ones regarding socioeconomic factors. Furthermore, as highlighted in the literature review, the TPB works as a framework open for extensions. Thus, two proposed additions – moral norms and past behaviour – were examined, statistically proven, and in form and content commented. In sum, both extensions had a positive effect on the prediction of payment intention under consideration.

The outcome of this study, with its implications for both theoretical and practical aspects of payment behaviour will be discussed in the next chapter.

## CHAPTER 7: DISCUSSION

As highlighted in section 3.3, prior research concerning over-indebtedness and payment behaviour was primarily descriptive in nature and lacked a strong theoretical behavioural foundation. Little research had been conducted to examine the attitudes and beliefs of over-indebted consumers toward payment behaviour. By applying the TPB to the field of consumer finance, this study was the first attempt to generate a theory-based approach of measuring the intention to pay mail-order invoices on time by over-indebted consumers in Germany. Chapters 5 and 6 described the analytical process of getting payment information from the target-group. In conclusion, the previous chapter highlighted the results of this study and provided support for the proposition regarding payment behaviour employing the TPB. Mail-order businesses, which are characterized by anonymity, tempting payment options (those with extended payment terms, in particular), and minimal invoice amounts, are especially affected by consumers' bankruptcy (seen e.g. in Table 61). The stated "emotional pain" of spending money is reduced by online shopping or via catalogue orders as the final expenditure is delayed and credit is generally socially acceptable (3.3.3). Consumers are able to order different goods of their choice and then decide which products will be returned and which will be retained. In an attempt to increase profits, the marketing campaigns and marketing communication of mail-order companies emphasize convenience with taglines such as "easy and comfortable choices among a range of products – try it at home and send it back for free." Based on my own professional experience, the marketing approach of mail-order companies has improved considerably in the last several years, due to technological innovations in the e-commerce environment (e.g. social media offers the possibility of ad placement upon one's preferences) and permanent availability of consumer credits. While the companies focused on gaining insight into shopping behaviour (e.g. via new scientific methods in neuromarketing), mail-order companies might paid insufficient attention to consumers' payment behaviour and its origin in underlying beliefs. However, with the market-entry of factoring companies specializing in mail-order invoices, a new possibility arose; small customer credits or invoices could instantly be sold by the retailers to banks or credit

institutes (e.g. offering financial services for a percentage of the purchase price and secures the remaining debt). Therefore, the retailer's risk was minimized and the responsibility was placed with a third party. This suggests that several participants in the mail-order industry were not concerned with negative payment behaviour because the arrangement delivered funds immediately. An investment of approximately 1 to 4% was considered a minimal expense for guaranteed payment and reduced client issues. Clients' personal circumstances were irrelevant to the marketing plan, which was designed to increase sales and revenues with the final goal of satisfying stakeholders. However, the approach of selling invoices does not engage the issue of a reducing debt among German consumers. The social responsibility of a corporation is relegated to a third party and might prolong negative effects in the future. When consumers stop paying the third party banks, the result is either increased fees for the mail-order company or a reduction in consumer credit scores with the potential prevention of securing future credit. This predicament suggests that this study would be of great interest to mail-order companies, for their association work, and getting more significantly, banks and credit institutions.

The following sections discuss the findings according to the research questions and propositions. It concerns the application of the TPB and its approved modifications against a practical background of understanding payment behaviour within the mail-order industry.

### **7.1 Development of consumer debt in Germany**

Although the rate of over-indebtedness in Germany showed only a slight increase from 2006 (see section 3.3, especially Table 11), it nevertheless demonstrated the dimension it had within the German society and economy. In 2013, approximately 10% of citizens over 18 years of age had financial problems, and 5.6% faced indebtedness. Debt within society should be regarded as a serious concern of the German federal government and all industries faced with consumers. Due to enduring high level of debt, the crisis cannot be regarded as temporary. It is a persistent problem for society and the individual as well.

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Although I worked in a mail-order company for several years, I was shocked about the extent of existing debt. It was overwhelming to learn that over 5% of the German population had unpaid debts considering related social sanctions within German society. Throughout this study debt counsellors mentioned that their clients were not unskilled individuals, many were academics and well-trained people. They reported the risk of modern society, in which unemployment, family breakdown, and illness (especially increasing mental stress) could happen to almost anyone. However, individuals are plagued by the fear of personal failure and sense of shame, which weakens their motivation to seek professional help from debt counsellors. These factors override the fact that the consultancy may be free of charge. It might be assumed that several debtors do not know that this possibility exists. "Personal" factors like illness, addiction and inefficient consumption behaviour were found to be notably increasing (see 6.1.2). This issue suggests that while the quota of over-indebtedness has remained virtually stable within German society, behavioural causes have increased in the past several years. As a result, behavioural descriptions and explanations as shown in the context of the mail-order industry, will be of greater importance in the future as described in the goal of this study.

Further investigation, as highlighted in section 6.1, offered a broader view, as the debt situation in Germany differed in relation to the habitation, gender, age and origin of an individual. This outcome is in line with code of practice. Mail-order companies recognized these determinants and applied this information to their credit scoring systems. Widespread areas in Germany (e.g. Berlin) suffer from a high percentage of unemployment and as a result are at a higher risk for over-indebtedness. Mail-order companies typically conduct an address classification to judge the financial power of consumers in a certain area. Those companies that do not currently use demographic data should consider the possibility to minimize the risk of bad debts and a potential loss in sales. Additionally, gender specific outcomes were found to impact debt ratios. By tendency, women were found to be more risk-averse. This suggests that an increased awareness in men of risk would be advisable. Awareness could be raised by broadening compulsory guidance before significant purchases were

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made with credit. The proposed individual assessment of the current financial power in an objective household life cycle, compared to others in this stage as a benchmark, could be useful. It has the possibility to persuade consumers to review financial decisions. Moreover, as women were more risk-averse, their involvement within payment decision could be invigorated.

Regarding the age of indebted consumers in Germany, a sizeable trend existed in the over-indebtedness of youth. The findings suggest that at an early stage necessary support both in financial and cognitive skills is needed. Support could be given in the form of training and education such as cognitive empowerment in school. Moreover, solutions focused on reducing unemployment among youth would be beneficial.

Additionally, in 2013, the Federal Ministry of Labour and Social Affairs found that individuals with lower levels of education tended to be more affected by over-indebtedness than those with higher levels of education. The possible cause of this fact might be due to a lack of economic literacy, income situation, and the inability to effectively compete in the labour market. This indicator suggests the need for assistance to those individuals, the demand for personal improvement, and ideally would be supported by the general educational system. According to the findings in section 6.1.2, elderly people who are over-indebted are more likely to suffer from insufficient income, which can be caused by the death of partner and/or illness. This suggests different arrangements. Solutions to the problems of the aged might include pre-emptive or emergent financial counselling in order to prevent a financial gap in the future, or insurance instruments that would supplement income in the retirement stage. It should be a priority to counsel individuals on available public financial benefits, which is not done sufficient so far as e.g. seen in “ignoring social benefits” on Figure 10, and how to claim those benefits in case of incidence. German citizens receive information regarding retirement pensions at different points in their lives. However, the interpretation of these estimates relative to projected costs of living is left for consumers to analyse. Again, the question of responsibility arises: Is the government or the individual responsible for ensuring long-term financial accountability at any stage within their household life cycle? Germany, as a welfare state, offers help when needed (e.g., in the case of unemployment or illness). Thus, to optimize and ensure personal

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welfare, each citizen could be held responsible for his or her actions and resultant consequences.

Germany is a multicultural country, with a foreign population of approximately 9%, representing the highest absolute number of immigrants in the European Union (European Commission - Eurostat, 2012). This group was overrepresented among over-indebted consumers and causes differed compared to those of German citizens. Again, the specific improvement of financial skills seems to be indicated, e.g. failure of self-employment (therefore poor income earner) was overrepresented (e.g. + 5 pp in 2012 (Statistisches Bundesamt, 2013)). A lack of verbal skills might have an impact on both failure of self-employment and current unemployment. No current information was available regarding mail-order behaviour or payment behaviour of foreign citizens in Germany; further investigation in this field is highly recommended. The growing rate of over-indebted foreigners and immigrants supports this demand (see Table 59).

In sum, the risk factors for becoming over-indebted include: insufficient formal education, a lack of vocational training, low income, a lack of daily living skills, compromised health, high age for the labour market, inadequate provisions for the elderly, and foreign nationality (SCHUFA, 2013). Those reasons and interrelations for consumer over-indebtedness in 2013 could therefore be regarded the same as identified by Korczak (2001): failure of society, economic forces, and the family as an institution. The different legal systems, e.g. public transfer payments, social security and the educational system, did not develop appropriate measures and skills to prevent the financial ruin of numerous people and families. Moreover, the economic forces driving industry were profit-driven, shareholder-value-oriented, and did not focus on social responsibility. Additionally, the breakdown of the family as an institution is illustrated by increased instances of: marital separation, divorce, single parent households, (alcohol) addiction, and violence. Although Korczak's view of the family was very traditional, his statement is still valid: "Behind that you can see the individualisation of life style (which means in many cases egoism), the loss of privacy and solidarity, the uncertainty about the right morals and ethics and the

focusing on material goods and consumption” (Korczak, 2001, p. XVI). While it is frustrating to confirm Korczak’s (2001) findings, his work demonstrates the need to view the current crisis as chronic, not temporary. Factors that may reduce over-indebtedness and bankruptcy might depend on the cooperation of society, and industry. If social responsibility is acknowledged in those sectors, then a common attitude of support might prevail.

## **7.2 Perception of consumer debt in Germany**

Over the last several years, a persistent level of debt might be responsible for an attitude of ambivalence among German consumers. As outlined in section 6.2, the perception about unpaid debt was clear – the majority of respondents agreed that debts would continue to increase in Germany. This outcome contradicted the available statistics. Although the number of highly over-indebted individuals in Germany increased moderately (see Table 11), the amount of indebted households (Table 10), indebted individuals (Table 57), and consumer credits (Figure 6) was constant or showed only a slight increase over the last years. This was consistent with the findings covering development of attitude towards credit and debts. Lea, Webley, and Walker (1995) asserted that during the 20<sup>th</sup> century, a radical shift took place in attitudes toward debt from general antipathy to acceptance as a part of a modern consumer society.

Results of the study showed that the younger the people were, the more they agreed on an increase in debt within the last years. Against their personal background of being indebted, this outcome might express their lack of knowledge about the current state of indebtedness in the German society or their own justification for being in this situation, which corresponds with the cognitive dissonance effect. As mentioned, an increasing segment of consumers regarded using credit as normal behaviour, not a debt inducing behaviour. Having debts is now for a part of the German population the normal case (Sommer, 2013). Dr Piorkowsky, professor for household and consumption economics, stated that the debt policy of the general government might influence the change in outlook: states are commonly financed by credits and this influences individuals (Sommer, 2013). This fact might further be influential, concerning the cognitive dissonance effect. Further investigation

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- Perception of consumer debt in Germany -

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regarding the influence of the debt behaviour of states and its impact on the mentality of consumers would be highly recommended. Moreover, not only the states report continuously new national debts, companies offer credits for nearly every acquirement. Going on vacation by using a credit or leasing a car is nowadays available and almost omnipresent in advertising.

This study had the intent to explore the perception about the development of having debts and, more significantly, the manner in which debtors view this phenomenon. The findings about the evaluation of debt illustrates the widespread perception that having unpaid invoices is within the norm at both at mail-order companies and in German society in general. A mean value of approximately four did not demonstrate the “neither agree nor disagree attitude,” rather it showed ambivalence regarding normality of payment behaviour and the potentially resulting debts. Unpaid invoices were for a part of this population normal and for others absolutely not normal. This finding was supported by Dr Piorkowsky, who showed that many people regard increased credits as problematic, hold the ideal of being debt-free, and feel proud to have the ability to buy products with cash (Sommer, 2013). However, is this outcome alarming? Almost 50% of the respondents mentioned having unpaid invoices at mail-order companies and not-paying invoices being within the scope of normal behaviour. Is this conduct and attitude a comparable kind of shoplifting as outlined in section 3.3.4? Would they behave in the same way with regard to their local butcher, baker, and corner shop where customers and proprietors are not anonymous and have a kind of personal relationship? Regarding the outcome of the questions about moral norms, the debtors emphasized that it would be morally wrong for them not to pay mail-order invoices on time. This suggests that it would be morally wrong not to pay, but when non-payment occurred, several would regard this circumstance as normal. Regarding payment to mail-order companies, a specific group of debtors had a reduction in moral responsibility regarding payment and justified their behaviour by relating it to societal norms. However, 50% of the respondents felt that it is whether normal nor in line with their moral norms. The responses of that group showed that an impetus for reducing debt exists in a large segment of German society. Moreover, this highlights the likelihood of societal shifts not only in Germany,



but also in Europe and the US. Although a gender specific difference was not demonstrable by statistical test, by trend women see minor unpaid debts as normal. This tendency could be shown by the increased use by women of mail-order shopping (e.g. 58% female customers in 2013, according to statistics of Bundesverband des deutschen Versandhandel, 2013).

Based on proven statistics, there is an interesting disparity between the “normality of not paying invoices” among the populations of imprisoned and not-imprisoned over-indebted consumers. By trend, imprisoned individuals regarded having unpaid invoices as normal. A basis for this difference might be found in the social environment in which they currently reside. The personal backgrounds of prisoners were not considered in this study in order to prevent anonymity. However, results show that the imprisoned do not regard paying late as immoral and a possible failure of payment could be justified as for them is regarded as normal in society.

### **7.3 Investigation of payment intention at mail-order companies**

The utility of the TPB as a theoretical framework for prediction and explanation of payment behaviour was illustrated in chapter 5 (statistical validation) and 6 (contextual interpretation). An important goal of this study was to evaluate each component of the TPB. The model predicted statistically significant the intention of paying prospective invoices on-time within the German mail-order industry through its constructs. The present study supported the use of the TPB for predicting payment intention within both the model of imprisoned and not-imprisoned over-indebted consumers in Germany. The TPB-framework led to a statistically valid application using structural equation modelling. As outlined in chapter 5.1, the model-fit and predictive relevance was statistically proven in depth. It highlights that the partial least squares model is a superior statistical technique to apply the TPB among small sample sizes. Its investigative character enables tests of extensions of the TPB framework as specific constructs could be easily integrated. Furthermore, the statistical power allowed segmentations of the sample group and improved the reliability and validity and latter interpretation of the data by ensuring data homogeneity, as the usually applied covariance based approach would need a much broader data base.

Within the not-imprisoned sample, attitude towards payment behaviour had a weak significant impact on payment behaviour. Although the influence of behavioural beliefs on attitude was statistically significant, the total effect of behavioural beliefs on intention was not significant (see Table 44). This suggested that the chosen beliefs did not significantly support the explanation of the attitude construct. The weak explained variance in the attitude construct ( $R^2$  0.123) further demonstrated that the underlying beliefs had little power to increase the variance explained in intention. In relation to the great effort undertaken to generate data about beliefs (almost 50% of the questions in the questionnaire asked) the outcome and utility was by way of comparison weak. However, the underlying beliefs explanations provided useful insights in understanding the attitude of over-indebted consumers, as seen in section 6.3.3. In particular, the gender differentiated outcome provided a dissimilar view on attitude and beliefs. The measured beliefs showed 24.3% in the variance of the attitude of men and only 9.2% of women. This signifies minimizing future risks such as preventing arrears fees and minimizes problems. In part, this shows the formulation of attitude towards payment behaviour in men. In contrast, beliefs not covered by this study were mainly responsible for the attitudinal construct of women and could be of interest for further research. Attitude towards payment intention had also a gender specific determination. Whereas the path coefficient of attitude towards the intention was not statistically significant for men, it had a weak statistical significant influence on payment intention for women. This means the overall influence of attitude within the comprehensive model was influenced and determined mainly by the female population, as seen in Table 50. In other words, attitude, measured through its indicators (e.g. payment on time is good, useful, and important) and the intention to pay mail-order invoices differed or rather had weak correlations for men. This suggests that although men regarded on-time payment as important, they were influenced by other factors, and did not behave as expected. A possible explanation could be the significant influence of social norms. For instance, payment on time could be regarded as unimportant, but social pressure from family and friends compelled the debtor to pay.

Subjective norm was the strongest predictor of payment intention and contradicts the attitude towards the intention component, which was the weakest. The significant impact of subjective norms on payment intention reflected that over-indebted consumers were likely to be influenced by the advice, opinions, or actions of others, particularly those individuals who the debtors held in high regard and who were very important for them. Moreover, the social pressure was also visible as they reported the expectation of others that they should pay as their reference group de facto pay their mail-order invoices on time. This finding is in line with the known psychological principle of social proof by Robert Cialdini, practically applied in marketing to persuade people to buy (Cialdini, 2001), and recent research (Knabe, 2012). The principle states that individuals regard a specific behaviour as correct if others are performing it, and behave in accord with social evidence rather than against it. In situations of uncertainty, people are more likely to follow the actions of others – especially when they view others to be similar to themselves (Cialdini, 2001). According to the social proof principle, the majority of mail-order retailers try to influence people by product reviews, Facebook likes, and amount of “Facebook friends,” testimonials, trust signals underpinning the satisfaction of other clients, and product recommendations. Therefore, it seems significant that the payment behaviour of an individual is also influenced by the important people in his or her life. The payment behaviour of a subject’s parents or other important persons impacted the subject’s subsequent actions according to their social expectations. This also supports the findings that over-indebted people with a lack of financial skills and unstable circumstances might be uncertain of appropriate behaviour and the actions of other could give them guidance and a moral compass.

The underlying normative beliefs had a significant influence on social norms ( $R^2 = 0.201$ ). This implies that debtors would be influenced by important others both actively through their opinions respectively advice and passively, through their behaviour. In detail, it provided support for the idea that an over-indebted persons’ perception of his or her parents was an important predictor of payment intention within the mail-order industry. For instance, if parents paid their invoices on time, by trend the individual tended to behave like them. This

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suggests an individual does not want to deviate from the standards learned from his or her parents. They also report that the pressure to pay invoices may be due to pressure exerted by parents. The influence of the family was the most important indicator both for men and women. However, the partner, spouse, and friends were of greater importance for women. In sum, Normative Beliefs explained 35.9% in variance of Subjective Norms ( $R^2$ ) for men, whereas for women only 19.8%. This demonstrates that the measured beliefs were of much greater relevance for men and that the peer group which were not covered in this study; neighbours for example, were of importance to women. Nevertheless, the influence of Social Norms towards payment intention for women (path coefficient 0.580) was higher than for men (0.352). Again, this data demonstrates that other groups were of greater importance to women. In sum, this finding suggests that the social environment of the consumer, especially the family, had a significant impact on further payment intention and respectively behaviour. This is consistent with both findings in similar surveys conducted by Chudry, Foxall, and Pallister (2011) and Palmer, Pinto, and Parente (2001) in the context of parents and students. Additional research by Lin (2008) supports the findings in the context of purchasing behaviour and the evaluation of the interviewed debt counsellors who emphasized that the immediate social environment of the individual (family and friends) influenced consumption and payment behaviour.

The theory did not fail, in this case whether the normative component contributed significantly and the attitudinal did not. As highlighted by Ajzen (1988) and Fishbein (1993), for both the TPB and the TRA, the weights of the components will vary depending on the investigated behaviour and its population. Payment behaviour among over-indebted consumers seems to be a type of behaviour that involves social membership; therefore, the role of subjective norms was a more important factor. As mentioned, being over-indebted is a social taboo and could lead to social sanctions when linked with personal failure and reduced financial possibilities for participation in social life. As a final part of the legal process, liability is publicly announced as a preventive measure to inhibit further debt, with probable negative impacts within the social environment. Although having a credit is socially acceptable,

misbehaviour might lead to social exclusion due to social comparison. The mentioned “Keeping up with the Joneses”-effect seemed to be applicable within the surrounding of payment behaviour and over-indebtedness in Germany.

The additional construct to the TRA, perceived behavioural control had a greater influence on payment behaviour than attitude towards payment behaviour. Regarding the specific circumstances of being over-indebted this seems obvious and supports the superiority of the TPB in this research. In case a debtor does not have the perceived control, the probability of payment is expected to be very low. Therefore PBC, as confirmed, had an influence on payment intention. Again, measuring the underlying beliefs, like having a fairly paid job, regular income, and a perspective on cash disbursements versus a payment plan led to a gender specific difference. Interestingly there was no measurable difference in relation to the current employment status. That means having a job or being unemployed had no influence on the evaluation of the construct which suggests the general importance of those beliefs. Although the influence of control beliefs of both men and women was statistically significant, the items had different utility ( $R^2$  women = 0.246; men = 0.150). Although the  $R^2$  value is weak, it enables the following explanation. Women regarded having a job and a regular projectable income more meaningful than men. In contrast, using a payment plan had no illustrative effect on PBC for men, as is a dominant factor for women within the PBC construct. In other words, perceived behavioural control is determined for men amongst others through the availability of having a job. In contrast, a payment plan is of vital importance for women. This suggests that for women a systematic financial management approach is of greater utility for payment behaviour than the availability of employment, which is however, regarded as very important. For men particularly, an overestimation of skills regarding managing their finances and simultaneous underestimation of financial obligations, in particular through ethical justification, is in line with the findings of Chudry, Foxall, and Pallister (2011).

In general, the outcome was contrary to the findings of the mentioned meta-analysis of Armitage and Conner (2001) where attitude was the strongest and

subjective norms the weakest. Armitage and Conner (2001) also stated that the most likely explanation for the weak prediction power of subjective norm lies in its single-item measurement. Therefore, subjective norms were both measured by direct questions and beliefs. As this is the first approach of explaining payment behaviour within the mail-order industry and no meta-analysis is available covering over-indebtedness, the findings suggest that payment aspects are more affected by subjective norms than by Attitude or PBC. Regarding the meta-analysis of Ajzen (1991), he acknowledged that “relative importance of attitude, subjective norm, and perceived behavioral control in the prediction of intention is expected to vary across behaviors and situations” (Ajzen, 1991, p. 188).

The statistical outcome of the imprisoned sample had controversial implications. According to the findings of Armitage and Conner (2001), attitude had the strongest influence on payment intention, followed by subjective norms – measured by a statistical valid and reliable model. Perceived behavioural control was not statistically significant. This suggests that attitude or how the imprisoned personally value the intention, had a major influence on intention. The social environment did not show a major influence on future payment as in the not-imprisoned sample, but could be regarded as moderate. The explained variance in subjective norms was comparable to the not-imprisoned sample, which indicates that other groups of importance were not covered in this study (e.g. parole officer) and could be addressed in further studies. Furthermore, it would be important to understand more about the social environment of the imprisoned respondents (e.g. whether they have a spouse and whether their parents had violated laws or over-indebted). The *perceived* behavioural control was not significant and did not influence payment behaviour for the imprisoned group. As already mentioned, this seems consistent with their circumstances, as the respondents mentioned that the decision is up to them, but the payment is neither possible nor impossible. However, the analysis demonstrated the importance of the availability of a job and a continuous income for the imprisoned people.

The TPB is open for extensions that could increase the predictive power of the model. Within this study, two extensions were applied based on its theoretical and practical utility, as highlighted in section 3.4.4.5 and following. The extension of moral norms led to a strong increase in the explanation of the variance, which was also demonstrated by a medium  $f^2$  effect size (see Table 52). This outcome was consistent with the finding of Beck and Ajzen (1991) and Conner and Armitage (1998) who highlighted its influence of moral norms on behaviours with an ethical or moral dimension. Payment of mail-order invoices, which could be regarded as a kind of free of charge short term consumer credit, could be regarded as a moral behaviour. A typical mail-order company assumes trust in their customer-relationship and a violation had negative outcomes for both sides. As highlighted, respondents – imprisoned and not – indicated their moral character by answering that it would be against their moral principles not to pay. However, as highlighted with the “Big Five” causes of becoming over-indebted, an invoice might fall short due to external influences (e.g. unemployment). Invoices implied therefore a potential risk. In case the debtor had known this in advance moral aspects could get extended or overlapped with illegality (as highlighted in section 3.3.4). The research question regards the future and eliminates unforeseen events, which strengthen the aspect of regarding those payments as having moral relevance.

The extension of the standard model with moral norms increased the  $R^2$  but limited the path coefficients of the subjective norm, which suggested and expressed the potential commonality. “As such, moral norms may reflect an additional form of normative pressure” (Conner & Armitage, 1998, p. 1442). These factors suggested a further explanation of the overwhelming importance of norms for on-time payment intention – subjective and personal. In addition to the importance of subjective norms, personal norms representing the pressure on oneself are of great importance for payment intention. Within this study moral norms correlated highest with intention, which was congruent to the outcome of the meta-analysis of Conner and Armitage (1998). Therefore, a clearly defined measure of moral norms might be a more powerful predictor in the context of moral or ethical decisions than was first realized in the model (see also Armitage & Conner, 2001) The overwhelming influence of moral

norms was visible regarding the imprisoned sample. By including this construct the explained variance in intention rose significantly ( $R^2$  0.5936) and all other constructs lost predictive impact. Over-indebted people being imprisoned behaved with a high correlation to their moral norms and factors like perceived behavioural control and subjective norms lost their influence entirely.

Predictive models in practice were based primarily on past behaviour. Therefore it was of great interest, whether this had an effect. The statistical analysis demonstrated that past behaviour had an influence on the payment intention (see Table 54) and slightly increased the explained variance. In sum, the construct had a small  $f^2$  effect (see Table 55). This was not as impressive as the addition of moral norms. However, as previously mentioned, Ajzen (1991) argues that the effects of past behaviour should be mediated by PBC in particular, and should be most strongly correlated with PBC (Conner & Armitage, 1998). Within this study, past behaviour had the highest correlation with PBC, as theoretically expected, and with intention and therefore represented a success. However, although weak prediction potential, out of a practical perspective this outcome was very important. As mentioned, most decision models are based on past consumer behaviour. That would mean the information about former payment behaviour had little influence on future payment intention. In other words, in case the social norms would change (e.g. important other change their opinion or behaviour), the predicted behaviour of a known customer would probably change. This had not be in accordance with their prior behaviour. Moreover, via the behavioural insights provided by this study, payment behaviour detached from prior behaviour explains the underlying beliefs and evaluation, which is expected to be more reliable than a single data point (purchase) within the customer relationship. A change of focus in the industry could limit the superior position of historical data.

In sum, a contribution of this investigation was to examine whether attitude, social norms, or perceived behavioural control toward paying invoices of mail-order companies has a unique effect on intention to pay on-time. The overall contribution value of the constructs of the TPB to the payment intention variable was approximately 35%. This indicates that 65% of intention to pay was



influenced by other variables not analysed in this study. However, a great deal was learned regarding the complex influences on human behaviour and the amount explained by the model.

Moreover, within the model of not-imprisoned consumers this study demonstrated the important effect of PBC and the superiority over the TRA within the environment of payment behaviour in the growing mail-order industry. Additionally, its flexibility for further constructs (Ajzen, 1991) was also demonstrated by both the extension of moral norms and past behaviour. As previously mentioned, the findings suggested that, especially for moral behaviour, the moral norms construct could lift the explained variance level. Regarding special circumstances, like being imprisoned, this raises the explained variance on a level of approximately 60%. In other words, more than the half of expected intention and future latter behaviour could be explained and predicted. Furthermore, in practice, past behaviour determines much of the decision on whether a potential customer would receive the opportunity to pay upon receipt or via small instalments. Therefore, as the influence of past behaviour towards payment intention was weak, but statistically significant, the addition is also suggested. In sum, by adding two constructs, the quality of the outcome could be increased by 60% (imprisoned) or 37% for the not-imprisoned sample.

#### **7.4 Improvement of explanation and prevention of bad-debts**

From a research perspective, the study results demonstrated the strength, utility, and superiority of the TPB for investigation of payment behaviour in the mail-order industry. This study is therefore in line with other studies, which had also successfully applied the TPB or the TRA as a theoretical framework explaining intention toward debt behaviour (e.g., Kennedy, 2013). In addition to the predictive power of attitudes toward the behaviour in question, other studies regarded subjective norms as important as found by Pelling and White (2009) or Knabe (2012), while others have found perceived behavioural control be important as described by George (2004). Both cases demonstrate the increased power of the TPB over the simple TRA and the behaviour specific influence of its construct, as done also by this study.

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Ideally, more studies of payment behaviour like this one would be conducted applying the TPB. This method might have positive results for the more mail-order industry by identifying and confirming the most important antecedents and beliefs in order to establish an adopted theory of payment behaviour for the mail-order industry. From a practical perspective, mail-order companies would be better able to advise their financial and marketing departments on facts concerning their clients' needs and in how to decrease their bad debts. In this study, the area of results that might help mail-order companies the most concern subjective norms. Beliefs about the influence of their personal environment were associated with positive subjective norms toward payment behaviour. Especially the payment behaviour of customers' parents had an overt influence on behaviour. Gender specific characteristics could be regarded as statistically proven and could further be developed – men and women differed both in their beliefs and norms. Finally, there will be one model for the mail-order industry; two are suggested, one for men and one for women. Based on the available of further socio-demographic data, yet another model could be appropriate (e.g. age specific). Moreover, moral norms and ancillary past behaviour were very important for understanding and predicting behaviour and should be taken in account by the mail-order industry. Having information about the moral norms would be important for the understanding of intention in the event that subjective norms and attitude are in conflict, especially as moral norms provide insights into the way an individual acts with respect to his or her self-interest and awareness of consequences for others (Hübner & Kaiser, 2006; Ravis, Sheeran, & Armitage, 2009).

In detail, for the mail-order industry the approved main forces of personal bankruptcy had the following implications and tasks:

**Failure of society and respectively its systems**

The industry could use their association work to encourage the government to work on improvements to German society. A proactive social policy would provide over-indebted individuals with comprehensive advice available within all phases of indebtedness or offer important relief aids (Kokott, 2013). This implies that the government should foster the relationship with the debt counsellors and

their organizations. Today, debt counsellors have difficulty fulfilling their extensive and quantitatively and qualitatively increasing tasks, as is evident from the long waiting times to schedule a consultation (usually four months on average). According to the calculations of the association of debt counsellors, two full-time positions would be required per 50,000 inhabitants to ensure timely advice. For instance, Hamburg would require approximately 65-70 additional full-time positions. Currently, in Germany approximately 1,600 additional full-time positions would be required to cope with the tasks of debt-advising on a professional standard (Ansen & Samari, 2012). As the implementation of this action would improve the current situation of over-indebted people, proactive prevention of bad debts by increasing the financial skills especially of the youth should be enforced. According to a report by Disney et al. (2008), credit counsellors recognized that most of their clients made unwise financial decisions in the past that had a negative impact on their subsequent financial situation. The primary cause for defaulting on loans was attributed to a person's inability to understand the contracts that they signed. A commonly shared view of consumers is that they were not able to understand the real costs of repayment, which was caused in part by the complexity of the lenders' terms and conditions (Disney, Bridges, & Gathergood, 2008). Lack of financial literacy was mentioned as an important aspect of insufficient financial household management. Research in the US indicated that services provided by credit-counselling agencies have improved financial behaviour of consumers with debt problems (Elliehausen, Lundquist, & Staten, 2007). According to Elliehausen et al. (2007), those credit counsellors have two objectives: to provide advice and to assist in personal skills. Providing assistance and advice has the goal to lower the current financial burden in the short-term. The long-term goal of skill improvement (e.g. by planning and budgeting) is focused on the prevention of overextension in the future (Elliehausen, Lundquist, & Staten, 2007). "Decision assistance 'triage' and education are intertwined in a good counselling session" (Elliehausen, Lundquist, & Staten, 2007, p. 6). Regarding the improvement of credit counselling, consumer educators and their organizations (e.g. "Verbraucherzentrale Bundesverband e.V." in Germany) could be involved and informed about the outcome of this study. Utilizing their positions as lobbyists,

counsellors could encourage the prevention of over-indebtedness due to lack of consumer education in the German society.

“Marketing on television, in the press, and on the Internet assumes that consumers want instant gratification” (Chien & Devaney, 2001, p. 177). However, simultaneously debt counsellors, consumer educators, etc. encourage consumers to consider long-term savings plans, particularly with regard to retirement. If consumers realized the actual cost of credits including long-term consumer credits and delayed payment on credit cards etc., they might modify their behaviour (Chien & Devaney, 2001). With a strong emphasis on attitude, consumer behaviour could possibly be modified by consumer educators (Chien & Devaney, 2001). Usually applied budgeting practices such as setting goals, listing expenses, and developing a mandatory spending plan might not work until the consumers’ attitudes toward the usage of financial credits have been identified and debtors have examined their beliefs about attitudes (Chien & Devaney, 2001). A deeper understanding of consumers’ credit related behaviour can be fostered considering: the predominant influence of social norms, by observing how consumers’ parents managed their financial facilities, by talking with close friends or partners / spouses about how decisions are made, and by reflecting on one’s own early experiences with money (Chien & Devaney, 2001).

The positive effect of fostering financial literacy was suggested by different studies. With respect to college students, “financial knowledge is critical. It is one of the strongest predictors of debt and is also one of the most amenable to change” (Norvilitis, Merwin, Osberg, Roehling, Young, & Kamas, 2006, p. 1407). Furthermore, parental involvement in teaching money management was “found to be associated with reduced loan delinquency and foreclosure” (Grinstein-Weiss, Spader, Yeo, Key, & Books Freeze, 2012, p. 257). Shim, Barber, Card, Xiao, and Serido (2010) stated support for the proposition that the behaviour of parents and financial education at school during adolescence helps to shape young adults’ financial learning, attitude, and behaviour. However, there were studies suggesting that students who participated in a personal finance course “were no more financially literate than those who did not take the course” (Mandell & Schmid Klein, 2009, p. 21). Programmes should

not only teach terms and techniques of financial management, but also possibilities to enhance self-sufficiency and different methods of prudent and ethical use of financial resources (Shim, Barber, Card, Xiao, & Serido, 2010). Therefore, continuous qualitative and quantitative programmes should be included in education. Regarding the key role that parents play within payment behaviour, they should be actively informed about the lessons that their financial behaviour imparts in order to encourage financial education at home (Shim, Barber, Card, Xiao, & Serido, 2010). Financial training should not end with school. According to Rutherford and DeVaney (2009), financial counsellors and educators could do the following:

- Using mass media such as the Internet (Display Advertising in forums), TV, and magazines to persuade consumers who are not comfortable making financial decisions on their own to enquire advice from a financial counsellor. Often debtors are unaware of the possibility of free debt consulting provided by different institutions.
- Promote financial education. Offer financial training (e.g. with financial support of the government) depending on specific stages in the life-cycle of their clients.
- Try to influence clients' positive and potentially irresponsible attitudes toward credit and highlight the consequences of financial obligations.
- Encourage their clients to make a reliable and realistic financial plan that extends beyond 5 years.

The German government acknowledged the issue of over-indebtedness long ago as shown by changes in the bankruptcy laws in 1999. Simultaneously, a poverty prevention programme to foster personal competence in budget management was established, offered to individuals, and reviewed as successful (Piorkowsky, 2004). The programme emphasizes the necessity and success of prevention programmes. The mentioned Austrian study (6.1.2) demonstrated the monetary effect, the sustainable payback, of federal debt consulting and prevention programmes for the entire society. "Individuals need financial skills - perhaps more now than ever before" (Lusardi & Tufano, 2009, p. 3).

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Regarding the long-lasting effect of over-indebtedness, the harm for the German society and economy, a corresponding programme would most likely be effective. Young debtors at the beginning of the family life cycle need money management skills as they transition into adulthood. However, what their families taught might be incomplete or became quickly obsolete (SCHUFA, 2013). Therefore prevention of over-indebtedness of young adults could be done by fostering life skills especially in school. In contrast to issues impacting the elderly, which tend to be external such as the death of a partner or illness; young people have the opportunity to learn constructive skills and gain empowerment through educational programmes (see SCHUFA, 2013).

Moreover, the necessary flexibility in the work environment makes it difficult for low-income earners to take a second job. This is problematic, especially if the monthly salary does not cover the cost of living. Savings for crises and age are probably not possible. At a further disadvantage are unemployed individuals who are unable to secure loans or credit. Therefore, when individual purchases are necessary, some might take so-called “credit bureau free” loans that regularly make use of an instrument that is classified as untrustworthy and unlawful (Rau, Hoffmann, & Bock, 2013).

### **Responsible behaviour of economic forces**

However, are mail-order companies the victims of bad debts or is it the result of their marketing campaigns? Based on professional experience, mail-order companies improved their skills in applying database marketing and collected relevant customer-specific data. Especially in the e-commerce environment, consumer Internet browsing can be tracked in detail. Therefore, regarding data privacy protection, e.g. “records can be constructed not only of what consumers bought, but also what they inspected and for how long” (Alba, et al., 1997, p. 46). Based on the data, mail-order companies could provide a unique shopping experience by providing suitable products that meet a user’s needs and preferences. They could present the goods in an emotional environment (e.g. newsletter), seduce consumers with suitable coupons or a complementary assortment of promotions and continuously prevent negative shopping experiences like waiting time in downloading slow web pages (Lim & Dubinsky,

2005). Permanent changes and additional offers within their services (e.g. mobile phone tariff, electricity tariff, health insurance) burden and potentially cheat consumers (SCHUFA, 2013). That suggests, that mail-order companies consciously try to persuade consumers even when evidence exists that a consumer has financial difficulties, e.g. by offering payment plans with high interest rates. Typically, solvent consumers do not engage in these types of arrangements. "Within a market economy, business behavior is not independent from consumer behavior and consumer acceptance. Quite often businesses get the consumers they deserve and vice versa" (Brinkmann, 2004, p. 129). This approach also highlights the responsibility of consumers for their own actions and their legal obligation to pay outstanding bills upon ordering.

Additional regulations of business activities would be necessary as has been instituted in the US with the CARD Act (Credit Card Accountability Responsibility and Disclosure Act) established in 2009 to protect clients of excessive debt incurred from credit cards. Senator Dodd, the chief architect of the CARD Act in the US, stated that "the whole business model of the credit card industry is not designed to extend credit but to induce mistakes and trap consumers into debt," and criticized many industry practices as "unfair and arbitrary" (as cited in Slowik, 2012, p. 1304). Dodd's approach can be viewed as an indictment of the credit industry. That is a pessimistic approach and cast a damning light on the whole industry. However, certain instruments were established as customer service measures. The financial failure of a given consumer is not caused entirely by the creditor. It may have proven more helpful to investigate and prevent the underlying causes: The mail-order industry could also provide payment upon delivery as the only payment method. But this might have negative impacts for consumers in relation to their personal stage in the life cycle, society in general, and the economy with regard to wealth distribution. Consequently, these factors would impact the mail-order industry.

However, this study asks why many consumers do not pay their invoices (on time) and does not condemn the behaviour itself. Within this study, the application of the TPB offered a specific view on payment behaviour. Instead of preventing payment upon invoices it indicates through its construct beliefs, attitudes, norms and perceived behavioural control in order to perform the

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behaviour. To give a résumé, each construct demonstrated its utility and the positive attitude towards the payment of mail-order invoices. Augmented with moral norms, it demonstrated that for those customers misbehaviour would be morally wrong. They intend to pay, but are not always able due to a variety of circumstances such as illness or unemployment. However, the lack of financial skills is an issue and should be solved with personal empowerment (e.g., training) rather than restrictions in order to generate a growth in economy and society.

The persistent consumer debt situation was examined and the distressing perception outlined. Debt counsellors and consumer educators should assist individuals to realize the significance of social norms and attitudes toward payment and credit “if the consumers are attempting to change behavior resulting from charging too much or having difficulty in paying regularly and on time” (Chien & Devaney, 2001, p. 177). Furthermore, an individual’s behaviour is very important for his or her personal social environment (especially in his or her behaviour as a parent).

## 7.5 Summary

This chapter highlighted the findings of both the public data about degree of over-indebtedness in Germany, the perception among over-indebted consumers, and the explanation of future payment behaviour applying the TPB. The main constructs of the TPB were statistically and contextually evaluated regarding both practical and theoretical utility. Due to gender specific differences, each construct of the theory provided its specific benefit. For women it suggested the importance of the social environment or social norms. For men the meaning of perceived behavioural control was significant. This led to the conclusion of the superiority of the TPB against the TRA. The extension of moral norms and past behaviour demonstrated the advantage of the flexibility of the theoretical framework of the TPB. Statistical evidence for the findings was provided by a verified approach of structural equation modelling PLS-SEM.



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Several links to practical work out of a policy perspective were suggested in order to prevent further debts within the German society. The next chapter focuses on concrete managerial implications for the mail-order industry.

## **CHAPTER 8: MANAGERIAL IMPLICATIONS**

The preceding chapter emphasizes the inefficiency of society and its systems in the prevention of over-indebtedness and addresses the corporate social responsibility of mail-order companies. This chapter focuses on implications of this empirical study for the management of mail-order companies. Post survey interviews with debt counsellors were conducted to discuss and confirm the outcome of the study (please see section 9.3). Managerial implications which were addressed within these interviews were reviewed in the following sections.

### **8.1 Fostering their association work**

A mail-order company could foster work through its association to achieve a legal improvement of the situation of over-indebted people with a better understanding of beliefs and influences on behaviour. This research shows that the mail-order industry receives important behavioural data, which they could and should utilize in their association's work. This information addresses the need to improve financial literacy and encourages consumers to use debt counselling (see chapter 7). Within their association's work, mail-order companies could recommend that the government should deal with issues causing over-indebtedness and provide down-to-earth solutions in case of being over-indebted (see Korczak, 2001):

- Foster continuous amendment of the consumer insolvency procedure (e.g. as currently done by the reduction of the legal period within the private bankruptcy process to three years from July 2014, see German Bundestag, 2013)
- Support and increase the efficiency of debt counselling agencies. Minimize the waiting time for advice seekers and a reduction of emotional barriers for contacting. Depending on the nationality, religion or cultural circumstances different approaches will be necessary. Although based on the trigger of over-indebtedness (e.g. self-employment among foreign citizens) different prophylactic counselling possibilities should be offered.
- Empowerment of the financial skills of society. Especially adolescent persons should be educated in money management and its consequences.

- Awareness of their corporate social responsibility -

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- Supporting and demanding continuous qualitative and quantitative extrapolation of the social science research in the debt respectively over-indebted sector, as a preventive approach to foster behavioural research.

## 8.2 Awareness of their corporate social responsibility

Mail-order companies should be aware of their corporate social responsibility regarding both the endorsement of a responsible customer and the minimization of negative impact on society. Concrete tasks could better clarify the conditions of consumer credit, providing information in different languages in order to ensure that people unfamiliar with the German language are not faced with a higher risk. I am convinced that it would be better to work proactively on the issue of over-indebtedness instead of passively awaiting a legal change. If a company offered more information than legally necessary, they might gain an increase in trust and security, which are important triggers for buying online and via catalogues and potentially increase customer satisfaction. Moreover, they could participate in campaigns that address the cautious use of credit and highlight services that provide help. Other topics could focus on the consequences of the lack of financial literacy and available educational programmes. Links to websites that provide payment plans or kind of a digital book of household accounts could be of interest to consumers.

An important part of corporate social responsibility is typically health promotion at work. Within their management of occupational health, companies address physical health protection in particular (e.g., yoga as a remedy for dorsal pain). The consequences of unemployment and illness were the main cause of over-indebtedness. In accordance with a proposal of an interviewed debt counsellor, companies should also address *psychological* health protection and support people in financial difficulties. Companies might be aware of the situation, due to garnishment of wages; however, they do not proactively support their employee and offer help. Within corporate social work the companies could offer confidential counselling to their employees, provide training or written information concerning current social insurance and additional private pension fund.

## - Gender specifics in payment intention -

It is important to highlight that from a managerial perspective, this study could be used in a persuasive manner. As especially social norms were most important for payment behaviour, companies could use this knowledge within their invoices or reminder letter. For instance they could use pictures of a lucky family as a small background image, “our products will provide joy and happiness to you and your loved one.” Furthermore they could highlight their own responsibility for the environment or social justice in order to address the moral-norms construct: “for every paid invoice, a vital meal for a homeless person in Berlin will be donated.” However, this approach would be negative corporate social responsibility and will not be followed up. Ideally, the mail-order business should make positive use of scientific data.

### 8.3 Gender specifics in payment intention

The IPMA (see 5.4) is an important visualisation of the current performance and importance of factors related to payment intention. From a marketing perspective, gender differences are of great importance because both communication and payment processes has to be created differently for these groups.

Figure 57 emphasizes the influence of subjective norms, in particular for women.

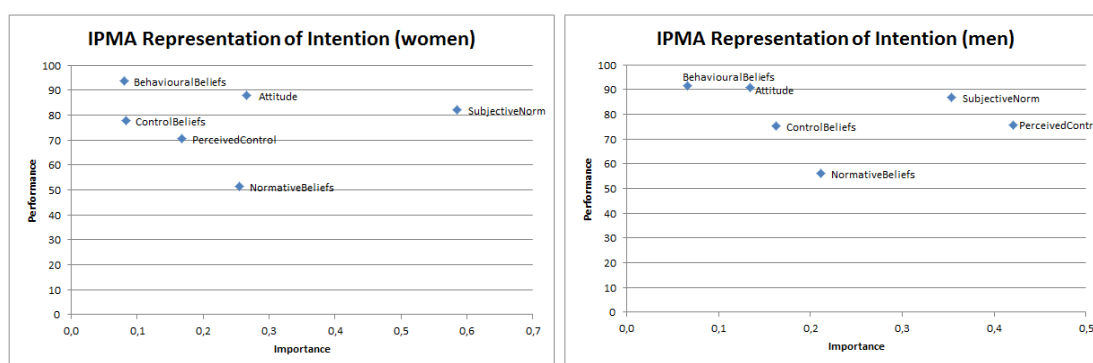


Figure 57: Gender specific IPMA Representation of Intention in the TPB

Based my interviews with debt counsellors, they mentioned the significant influence of the social environment of debtors. In particular, the counsellor emphasized that women’s payment behaviour is highly influenced by pressure from their peer groups (see also section 9.3). The influence of perceived behavioural control in men was also confirmed by debt counsellors and emphasizes the dependence of payment intention to internal and external

## - Scoring of potential customers -

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influences. For men particularly, having a fair paid job and a regular income is of great importance. The weak performance of 'normative beliefs' in Figure 57 demonstrated that important individuals or groups, not covered within this study, influence payment intention of mail-order invoices. Within my interviews debt counsellors mentioned that an individual's children and neighbours were potential influences, which could be investigated in a subsequent study.

However, Figure 57 demonstrates that the performance of the intention for the constructs is high. For instance, the high performance of 'behavioural beliefs' emphasized the known positive effect of payment on time. In sum, based on the outcome of this empirical study, the payment intention could be regarded as high. Nevertheless, actual behaviour could differ. In accordance to the meta analysis of Armitage and Conner (2001), the correlation between intention and actual behaviour was moderate ( $r = 0.47$ ) which led to an  $R^2$  of 0.22 (see Table 19 on page 105). The addition of perceived behavioural control led to a marginal increased ( $r = 0.52$ ). The future actual behaviour might differ; however, payment intention is the best predictor for actual payment behaviour (Ajzen & Fishbein, 1980).

The importance of subjective norms emphasizes the influence of important individuals and social pressure. Moreover, the addition of moral norm highlights the personal pressure. In sum, a gender specific communication strategy and scoring system could be an important factor for invoice payment. This factor is considered in the next sections.

### **8.4 Scoring of potential customers**

The mail-order industry should ensure that they constantly improve their knowledge about behavioural payment. Offering unsecured methods of payment like payment upon receipt or in small instalments constitutes a risk. In order to reduce the risk of bad debts, the mail-order industry needs a statistical approach that covers different data. The scoring algorithms should consider that payment intention is gender specific and is also influenced by socio-economic factors. Age, habitation, nationality, household size, children, monthly income, marital status, and education are further important determinants of perceived risk (see 6.1). The evaluation "scorecard" of the company should include these

## - Scoring of potential customers -

metrics. Depending on these factors, the probable risk could be further determined (e.g. with scorecards or statistical techniques like neural networks).

However, there is a limitation in the scoring process, because every new external database covering consumer specific data is combined with additional costs. That means, the amount of bad debts is decreasing but simultaneously the amount of fees is increasing (see Figure 58). The optimal risk strategy based on scoring mechanisms should be a local optimum. Typically, high security combined with low costs is not possible in the risk assessment environment (Stahl, Wittmann, Krabichler, & Breitschaft, 2012). In general, the management of a company must decide whether they will offer unsecure payment methods or not. Risk assessment could limit the possibility of bad debt, however it cannot provide absolute security. Research in the origin of debt, such as in this study, is therefore of great utility for the management of a mail-order company.

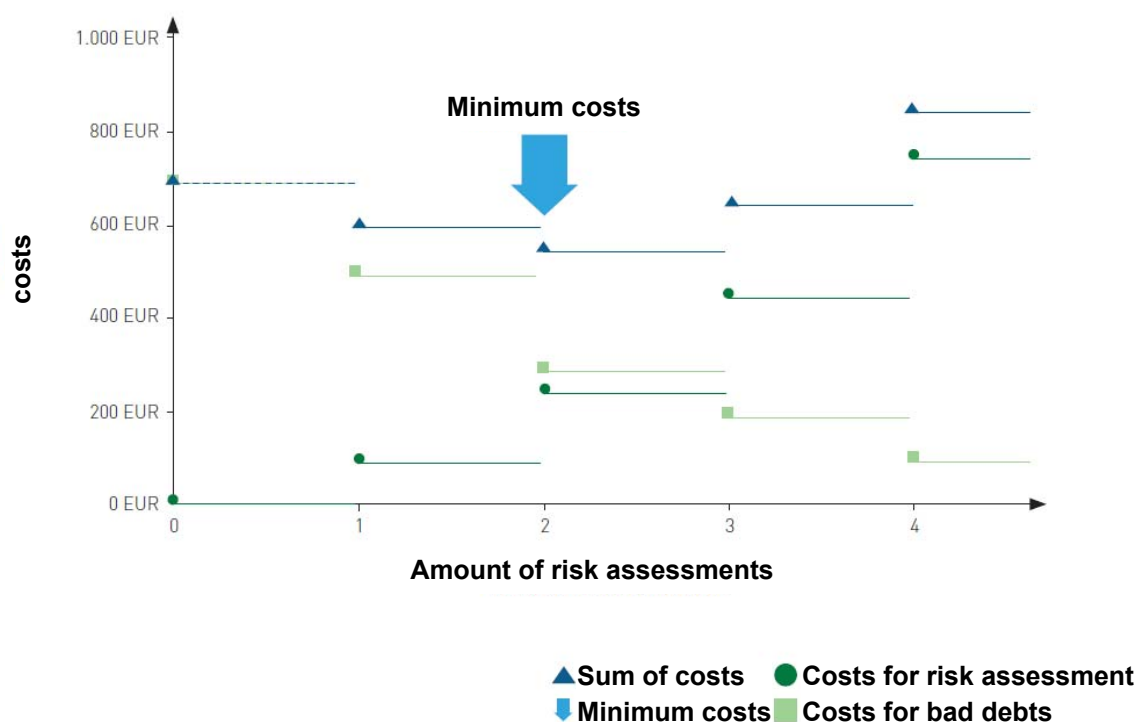


Figure 58: Minimum costs in risk assessments

Source: adopted from Stahl, Wittmann, Krabichler, & Breitschaft (2012, p. 5-26)

Unforeseen external events like unemployment, income change, or illness underlie payment behaviour. This risk could be secured by factorization and an

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- Scoring of potential customers -

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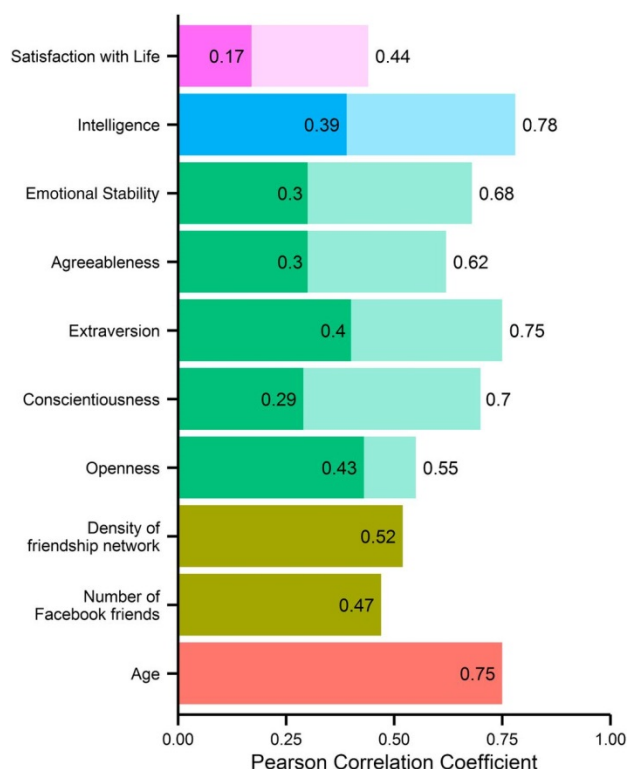
additional fee could be charged. Beside morally suspect aspects, such as third party companies buying customer debt, becoming responsible for companies' customers, the company is dependent of the acceptance rate of such a credit insurer "cherry-picking." Connected with a higher invoice amount, unforeseen events could be secured and limited as the possibility exists that an over-indebted consumer would choose an alternative payment method (e.g. PayPal or cash on delivery).

Additionally, the interviewed debt counsellors promised a discount for immediate payment (e.g. via credit-card) or a gift at the end of the year for paying each invoice on time. Statistics demonstrated that consumers might change the preferred payment by invoice to secure payment methods, if they receive a discount (3%) on the invoice amount (Stahl, Wittmann, Krabichler, & Breitschaft, 2012). However, I recommend critically verifying this suggestion, because I think that only individuals with financial strength will consider an alternative secured payment method. The over-indebted target group might not have the financial possibility to pay the whole invoice in advance or do not have a credit card. This would potentially lead to a decrease in earnings due to reduced invoice amounts and constant bad debt.

Finally, attitudes, social norms, and behavioural control should be company-specific and investigated further. In the event that general attitudes and norms were ascertained, the company could assess whether the potential customer fulfilled these requirements by asking questions that would predict a higher probability of payment on time. The ideal statistical combination in order to minimize the risk of bad debt would be gathering information of both tangible and intangible content. Information about address, sex, etc. is a given, but information about social norms or moral values is only assessable by latent constructs. Those latent constructs could be determined by asking suitable questions for the construct or using databases which cover easily discovered information (e.g. social media like Facebook or Twitter). Figure 59 demonstrates the predictive power of Facebook "likes," which are easily accessible digital records of human behaviour (Kosinski, Stillwell, & Graepel, 2013). This new information for the mail-order industry, "Facebook likes," "Facebook shares,"

## - Improved communication with customers -

and “Twitter mentions” could be used to assess the specific latent constructs, in particular moral norms and subjective norms.



**Figure 59: Prediction accuracy of regression based on Facebook Likes**

**Source:** Kosinski, Stillwell, & Graepel, 2013, p. 3; Prediction accuracy of regression for numeric attributes and traits expressed by the Pearson correlation coefficient between predicted and actual attribute values; all correlations are significant at the  $P < 0.001$  level. The transparent bars indicate the questionnaire's baseline accuracy, expressed in terms of test-retest reliability.

This additional layer is complex; however, it demonstrates the technical and statistical evolution available for the mail-order industry. This thesis emphasizes the importance of latent variables for payment intention, moral norms and social norms, the restriction of using past behaviour for future payment prediction, and the gender specifics in payment intention. I think, social media data combined with power of machine learning and statistics will be of great utility in the future. I am sure that we are at the beginning of a digital revolution in gaining insights into consumer behaviour based on data. Again, ethical and data security issues about consumer profiling should be ascertained.

## 8.5 Improved communication with customers

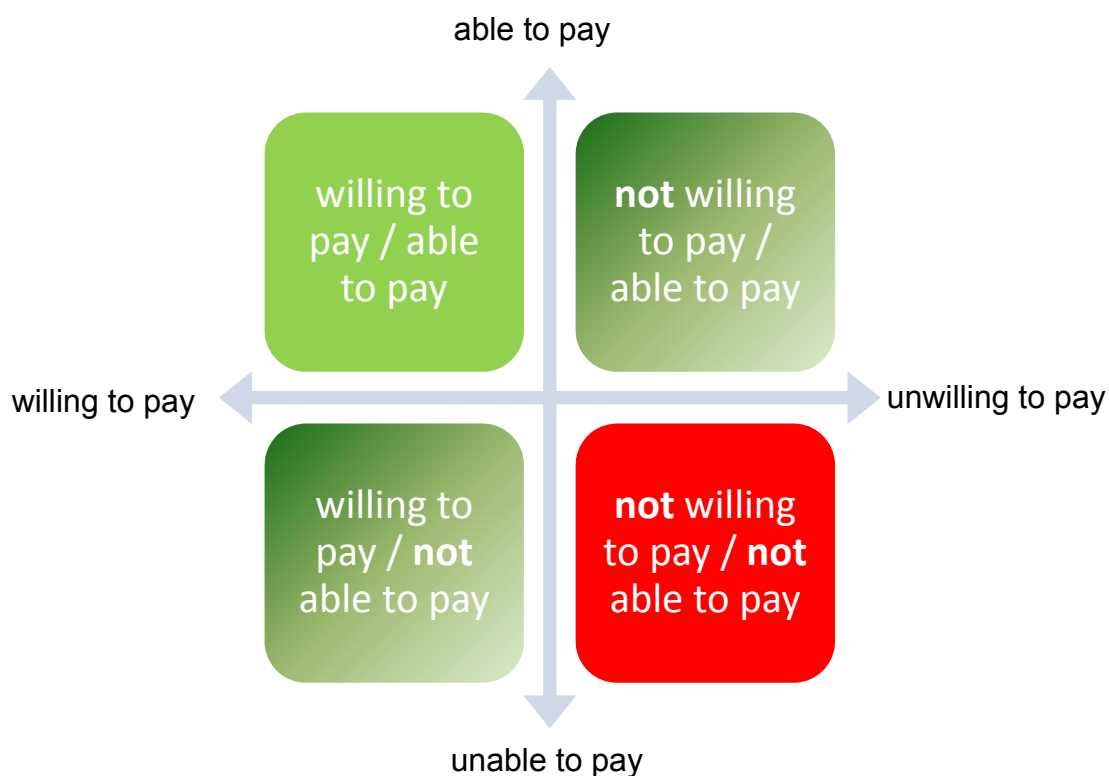
The need for improved communication with over-indebted customers was an important outcome of an interview with a highly experienced debt counsellor who also is a university academic. He mentioned that communication must be improved in order to reduce both bad debts and the churn rate of current



## - Improved communication with customers -

customers. Based on more than 30 years of professional debt counselling and his position as a consulting expert for consumer banks, the counsellor emphasized a communication oriented approach for debt reduction and to increase customer satisfaction:

Each customer could be positioned within a quadrant of a 2x2 matrix comprised of axes covering 'willing to pay' and 'able to pay.' As a function of the position within the matrix, the communication strategy is of importance for success in bad debt reduction.



**Figure 60: willing to pay / able to pay matrix of payment behaviour**

**Source:** Illustration based on the outcome of an interview with a debt counsellor

The implications of the matrix in Figure 60 are the following:

**Willing to pay / able to pay:**

This category identifies those customers who have financial strength and are willing to pay. This represents the best case for the company. Based on my professional experience, mail-order companies typically have a single process for the preparation of reminder letters. It would be of great utility if the companies were assured that the customer had received the parcel or service

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- Improved communication with customers -

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(e.g., via track-and-trace of the parcel delivery company). Moreover, customers having a consistent track record of payment in the past should be asked in advance if something went wrong with the service instead of sending a standard reminder letter. However, different companies send reminder letters automatically without verifying that the consumers have received the goods or services. This approach causes dissatisfaction, because misbehaviour of the consumer is communicated and not a possible failure of the company. In the final consequence, a client-side determination of the customer relationship is possible. My own professional experience is in accordance with the experience of the interviewed debt counsellor's professional and personal experience. Although, these customers represent the best probability of a guaranteed payment, the communication towards the customers should be distinct.

**Not willing to pay / not able to pay**

This group is very difficult, because they do not have the financial possibilities to pay their invoices on time and they have no intent to pay. Legal enforcement might not be productive, although most companies apply this approach. Specific communication is the key to transforming this group to 'willing to pay and able to pay (small amounts).' The debtor has to gain the feeling of 'they understand my current situation,' which leads to a transformation from not willing to willing. The company has to make considerations in order to provide a rationale for the debtor to fulfil the negotiated monthly payment obligation, particularly that the interest will be reduced to zero. Although, small amounts were economically inefficient, e.g. 5 to 10 Euro per month, the company stays in contact with the debtor. Otherwise after years of non-paying an invoice, the debtor will most likely forget this obligation and will not react on any form of communication. Based on the experience of the interviewed debt counsellor, a consumer bank has increased their margins by applying a customer-oriented communication. Examples of identified causes of non-payment included the death of parents and a lack of child benefits. The debt counsellor emphasized that in his view, lawyers negotiate more than business economists because they have realized that they receive better economic results.

### **Not willing to pay / able to pay**

This group has the financial strength, but will not pay. Based on personal professional experience, the main cause for this behaviour is irritation and hassle. This phenomenon occurs when the relationship between the customer and the company deteriorates. Causes may include delayed delivery, missing delivery, unfriendly customer service, etc. Again, communication with the customer is necessary to investigate the cause of refusal in order to both receive the money and to prevent a move to their competitors.

### **Willing to pay / not able to pay**

This quadrant represents people experiencing a difficult financial situation. However, they are willing to pay. An over-indebted individual who is willing to pay could pay in most cases, although it is most likely a very small amount (e.g. 5 to 10 Euro per month). Finally, this group will evolve into the “willing to pay and able to pay (small amounts).” The time period for fulfilling the obligation might be lengthy, but the company will receive a small instalment every month. Those people need assistance and the support of the company in order to arrange reduced interest rates and the elimination of default charges. The typical communication of a mail-order company in their reminder letters where they announce legal regulations is not suitable for this kind of debtor. The communication should be supportive of the debtor (e.g. the zero interest rate). However, sometimes debtors are over-indebted on a level where they are unable to pay even a small amount. Based on my professional experience, that is the risk of a consumer credit in the form of invoices or small instalments, which is typically calculated in the prices of the goods and services.

An important aspect of customer oriented communication is the emergent process of immediate invoice factoring or fast referral to a collection agency. A third party contacts the customer and tries to get the amount invoiced in total as fast as possible. Debt counsellors mentioned a difference in the approach of collection agencies, factoring companies and the original company where the customer bought. Although collection companies and factoring companies also offer customer services, their main goal is to receive money, whereas a company usually intends to increase the customer lifetime value with additional

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- Summary -

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purchases or services. The customer relationship with the original company might be limited to the dominant debt collection procedures of third parties. Debt counsellors described a, by trend, anonymous process - "it is not a customer anymore, it is money collection – anything else is not of interest."

## 8.6 Summary

Based on the empirical results of the study, gender specifics in payment behaviour is an important aspect for marketing. Not only does advertising focus on gender, but the final act of payment is also gender specific. For the mail-order business this is very important because both the scoring mechanism and the communication should be individualized. The current approach using a general process in scoring and customer communication might be ineffective and reveals the potential for improvement. Therefore, an important managerial implication is the design of communication when a payment delay occurs. A standardized process or direct invoice factoring might be critical in the manner of achieving the best outcome, now and for future transactions with the customer. Payment upon invoice is a risk where communication could both limit the risk and supports future positive relationship. Gender specific communication and up-front analysis of the consumer could reduce the risk but not manage it; however, offering unsecured payment options and 100% guaranteed payment is not possible. Scoring mechanisms using data from social media applications like Facebook or Twitter could gain deep insights in social norms, moral norms, and attitudes. In addition, the management of mail-order companies should foster their association work to influence the German government. Financial literacy and a stable economy are elementary parts for the prevention of over-indebtedness.

In general, the results of this TPB study help consumers, debt counsellors and mail-order companies to better understand the role of attitude, moral and social norms, past behaviour, and perceived behavioural control toward on time payment of over-indebted consumers.

## CHAPTER 9: REFLECTIVE COMMENTARY

The aim of this thesis was the investigation of future payment behaviour of over-indebted consumers within the German mail-order business. Payment by invoice or small instalments is the most applied payment method in Germany. Typically, the customer receives the goods or service immediately, without making an initial payment. There is a high trust in the payment behaviour of the customers. However, 2.5 % of consumer credits were not paid (SCHUFA, 2013). Typically, traditional mail-order companies applied a scoring system, based on internal and external data, to rate the potential customer and to minimize the risk. If the company does not use a scoring system, the implementation is highly recommended.

Debt counsellors mentioned that over-indebted consumers favour the mail-order business because that industry offers the possibility to receive the goods immediately and pay for them in small instalments. For a high proportion of heavily over-indebted consumers, ordering at different mail-order companies is the only way of receiving high price goods, such as furniture or technical equipment, because the local stores only accept immediate payment of the full amount. Using information from interviews with debt counsellor, and based on my professional experience, an important issue of the current rating procedure was emphasized: several over-indebted consumers know the scoring-mechanism and therefore slightly changed their name or address (replace e.g. "Sibylle" to "Sybille" as a forename or add a character to the house number, e.g. "5" to "5a") to be scored as a new customer. Usually the postman will deliver the parcel regardless of the changes. This approach emphasizes the need for an investigation of the underlying beliefs and determinants of payment behaviour because the scoring process demonstrates its limitations.

Originally, this thesis had the aim to apply the theory of planned behaviour and tested whether the theory is appropriate for the application in the environment of payment in the mail-order business. Based on figures of more than 100,000 new private bankruptcies per year in Germany, 400 respondents were expected. Therefore, the CB-SEM approach was favoured as it is the preferred

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- Summary -

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statistical technique for theory testing with an adequate sample size. However, within the study the original focus changed. The literature review emphasized that, to date, no study or meta-analysis covering the aspect of payment behaviour in the specific environment of mail-order business existed. Moreover, the review highlighted the promising extension of the original model of the TPB to moral norms to develop a mail-order specific model. Past behaviour as the main predictor of future behaviour is of great relevance in the mail-order industry. Therefore, the exploration into the relevance of past behaviour was a significant aspect in determining the best model.

In sum, the focus of theory-testing changed to theory-exploration. In addition, the sensitive topic of over-indebtedness and the exploration of the underlying beliefs required qualitative research with interviews. Based on this very important initial content, quantitative research to explore a suitable model using SEM followed. The response rates of the questionnaire were small due to the number of questions asked, the sensitive topic and the specific situation of the necessity of gatekeepers, the debt counsellors (see the legal process in section 2.2). Debt counsellors were open to interview, and provided a suitable avenue to gain access to the target group of over-indebted consumers. A debt counsellor mentioned that a high level of shame is characteristic for this population, which supported the assertion that over-indebtedness is considered a taboo-topic in Germany. Those individuals experience social exclusion because they are unable to equally participate in their social environment. For instance, unlike individuals in financially stable families, over-indebted parents might not visit a city festival or the celebration of the local football club where their children play because they could not buy their children something to drink and eat, as other parents do.

Consistent with theory exploration and the small sample sizes due to the sensitive topic, an exploratory PLS-SEM was applied as a suitable statistical approach. A review of the significant choice between PLS-SEM and CB-SEM is provided in the section 9.1 below.

## 9.1 PLS-SEM vs. CB-SEM

When applying SEM, researchers have to choose between CB-SEM and PLS-SEM (see 4.3.2.1). Both methods have the same underlying theoretical and measurement equations; however, the estimation of the parameters differs (Reinartz, Haenlein, & Henseler, 2009). In general, there are three differences between CB-SEM and PLS-SEM (Reinartz, Haenlein, & Henseler, 2009): First, the estimation of the parameter in PLS is a sequence of OLS regressions, which implies that no assumption about the normality of data is required and the estimation needs only small sample sizes. Second, CB-SEM reproduces an empirically observed covariance matrix and “should be the method of choice when the focus lies on confirming theoretically assumed relationships” (Reinartz, Haenlein, & Henseler, 2009, p. 333). PLS-SEM maximizes the variance explained in the endogenous constructs and “is therefore better suited for situations in which the researcher wants to predict the latent variables in the model or identify relationships between them (e.g., in the early stages of theory development)” (Reinartz, Haenlein, & Henseler, 2009, p. 333). Third, the basic parameter estimation in PLS-SEM is identical for formative and reflective measured indicators, which in contrast to CB-SEM, conclude in an unlimited number of formative indicators (Reinartz, Haenlein, & Henseler, 2009). Moreover, PLS-SEM allows single item constructs (Fuchs & Diamantopoulos, 2009), which are necessary or of great utility in studies (e.g., past behaviour) (Ringle, Sarstedt, & Straub, 2012).

According to a meta-analysis of articles published in MIS Quarterly, Ringle, Sarstedt, and Straub (2012) highlighted that the main reasons for applying PLS-SEM were related to small sample sizes, non-normal data, the use of formative measures, and focus on prediction. However, the algorithm estimates formative constructs without error terms (see 5.1.4) and therefore, automatically applying PLS-SEM when using formative measures is hard to defend in practice (see also Ringle, Sarstedt, & Straub, 2012). Moreover, the analysis of Reinartz, Haenlein, and Henseler (2009) demonstrate, that CB-SEM behaves robustly if the data-distribution assumptions are violated. Therefore, the choice of PLS-SEM over CB-SEM due to non-normal distribution is often inappropriate (Reinartz, Haenlein, & Henseler, 2009). Westland (2010) emphasized that

## - PLS-SEM vs. CB-SEM -

existing sample size heuristics (e.g., the “10 times rule” in 4.3.2.2) should be regarded carefully, because his literature review concluded its potential poor fit and exploratory power of the model. However, it is more important to consider that PLS-SEM is the preferred method when the focus of the study is on theory development, exploratory model specification, and prediction (Reinartz, Haenlein, & Henseler, 2009) rather than hypotheses testing (Westland, 2010, p. 15; see (Wold, 1981) cited there). The outcome of PLS-SEM occurs under small samples and complex models which emphasize that model predictions with PLS “can only be considered *plausible*, rather than confirmed by the data testing” (Westland, 2007, p. 15; see (Wold, 1981) cited there). “Thus in PLS, the sample size question is probably both less relevant and critical, because hypothesis testing is better left to LISREL and systems of equation approaches” which represents CB-SEM (Westland, 2010, p. 483). In sum, PLS-SEM “excels at prediction” (Ringle, Sarstedt, & Straub, 2012, p. x).

The main criteria for choosing between PLS-SEM and CB-SEM is demonstrated in Table 68.

PLS-SEM	CB-SEM
<ul style="list-style-type: none"> <li>• <b>The goal is predicting key target constructs or identifying key “driver” constructs. The research is exploratory or an extension of an existing structural theory.</b></li> <li>• Formatively measured constructs are part of the structural model. Note that formative measures can also be used in CB-SEM, but doing so requires construct specification modification (e.g., the construct must include both formative and reflective indicators to meet identification requirements).</li> <li>• The structural model is complex (many constructs and many indicators).</li> <li>• The sample size is small and/or the data are non-normally distributed.</li> <li>• The plan is to use latent variable scores in subsequent analyses.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The goal is theory testing, theory confirmation, or the comparison of alternative theories.</b></li> <li>• Error terms require additional specification, such as covariation.</li> <li>• If data meet the CB-SEM assumptions exactly (e.g., minimum sample size and the distributional assumptions), select CB-SEM; otherwise, PLS-SEM is a good approximation of CB-SEM results</li> <li>• The structural model has non-recursive relationships.</li> <li>• The research requires a global goodness-of-fit criterion.</li> </ul>

Table 68: Rules for choosing between PLS-SEM and CB-SEM

Source: adopted from Hair, Hult, Ringle, and Sarstedt (2014, p. 19) and Hair, Ringle, and Sarstedt (2011, p. 144).



Finally, the exploratory character of PLS-SEM and the conformatory character of CB-SEM should be the main criterion for the choice and is therefore marked in bold in Table 68.

The original intention of this thesis, theory testing, was in accordance with the criteria in Table 68. Based on the preceding literature review and the data gathering process with different interviews with debt counsellors, the focus of this study changed to theory development. Consistent with this approach, PLS-SEM was the best-suited method and all 'rules' in Table 68 were fulfilled. In particular, the small sample sizes with non-normal distribution and the latent scores for the Importance-Performance matrix analysis (see 5.4) were crucial advantages in the PLS-SEM choice. Researchers should consider the research goals in the choice of the SEM approach. Although the PLS-SEM method has different advantages, in particular with small sample sizes, the aim of this statistical method is theory exploration and not theory testing.

The following section reflects on issues of small sample sizes related to the sensitive research context. Moreover, the subsequent section also summarizes the outcome of the interviews with the highly-experienced debt counsellors conducted during this study.

## **9.2 Issues related to the research context**

The topic 'payment behaviour of over-indebted people' is very sensitive because over-indebtedness is a serious concern for the debtors. The access to this population is very restricted, because little information exists to identify those individuals unless they file for personal bankruptcy (see 3.3). Additionally, many over-indebted individuals are unwilling to speak about their circumstances. Therefore, the debt counsellors who have intensive contact with this population were of great relevance for this study. The debt counsellors know the personal situation of their clients and typically consult with them over the course of several sessions. The counsellors attempt to negotiate a payment plan or, in the extreme, to get a discharge of residual debt (necessary in the legal process, see section 2.2). The relationship between the debtor and the counsellor is based on considerable trust. Therefore, the 'expected' answers to

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- Issues related to the research context -

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a questionnaire provided by a debt counsellor should have both great reliability and validity. The relationship between the debt counsellor and debtor is characterized by a high degree of confidentiality, and an 'outsider,' a researcher would typically not have access to the beliefs, norms, and attitudes of debtors. In sum, the mixed approach of quantitative (questionnaire and SEM) and qualitative research (interviews for gathering beliefs, feedback for validity and wording, and interviews for gathering a reality check out the outcomes) was of great utility. Although I intended to use only quantitative research because of my philosophical background and the favoured theory with data and statistics, I enjoyed and valued the continuous contact with different debt counsellors all over Germany. In my view, they represent an underestimated source of knowledge for this study. In retrospect, conducting more interviews would have been of utility for the relevance of the beliefs and therefore, for the outcome of the study. The answers of the interviewed debt counsellors to the questions in the first stage were similar. However, further interviews might deliver insights that were not covered by those interviewees. I highly recommend conducting qualitative research in this specific topic, where access to the target population is very limited. Moreover, the outcome might be biased if the trust and confidence of the debtor-counsellor relationship of this sensitive topic is absent and an 'outsider' would talk to the debtors.

Through their daily consulting, debt counsellors are an important source for information regarding the overt beliefs and behaviour of their clients. Interviews were of great importance for this study. In-depth interviews were conducted with five highly experienced debt counsellors in order to provide a valid questionnaire. The basis of the exploration for a specific payment behaviour-model was the TPB, where two different extensions to the original TPB-model were statistically tested. Gender specific differences were discovered in the analysis. In order to validate the practical relevance of the final outcome of this study, three in-depth interviews were conducted (two of them were the same as for the design of the questionnaire; one was the colleague of a previous interviewee). In sum, interviews were conducted with debt counsellors in two different stages of the study: at the beginning in order to elicit salient beliefs and validate the questionnaire and at the end of the study in order to validate the

outcome and provide further insights into the target population. The outcome of the interviews at both stages is provided in the following section.

### 9.3 Outcome of interviews with debt counsellors and test for practical relevance

The interviews with the debt counsellors were the basis for the belief-related questions in the questionnaire (see 4.4.3). In order to validate the study, proof for practical relevance of the outcome, and to provide information for further research, this section concludes with the answers of the interviews with the debt counsellors. The focus on the second interviews, conducted after the final study concentrated on the gender specifics in the population, which was not explicit from the first interviews.

The behavioural outcomes for the formulation of the behavioural beliefs were based on question of advantages and disadvantages for their clients of paying every invoice from a mail-order company within the regular term of payment. The outcome of the first interview is demonstrated in Table 69 (please see whole questionnaire in the appendix A-1). In sum, the pilot questionnaire covered the mentioned beliefs of the counsellors (see 4.4.4).

Advantages of payment	Disadvantages of payment
No reminder letter (5)	Other obligations (e.g., monthly rent) could not be fulfilled (2)
No legal enforcement of mail-order company (4)	Loss of interest on bank account (2)
Overview of financial situation (3)	
Easiness and peace of mind (2)	
Further possibility to pay upon receipt or instalment (2)	
Fulfilling moral norms (1)	

Table 69: Advantages and disadvantages of payment on time

Source: Mentions of debt counsellors; number in brackets representing number of mentions

In the second interviews, the debt counsellors confirmed the importance of the advantages and disadvantages of payment on time, which supported the questions asked in the questionnaire. However, they mentioned gender specific differences. Women make more of an effort to pay the invoice of mail-order companies on time. A debt counsellor named it as “protection of the family”

against further negative impacts. In particular, single parent mothers try to maintain payment on time. Moreover, a debt counsellor added that women suffer both physically and mentally when they are unable to pay. In general, women were more inclined to use mail-order business and intended more to maintain this shopping possibility by maintaining on-time payment. Men, on the other hand, regard debt in total and do not pay until legal action is initiated. However, debt counsellors mentioned in the first interview that several debtors were aware that an over-indebted individual could not be forced to pay. Another debt counsellor mentioned that several debtors do not consider payment at the moment of ordering. "Hassle with mail-order companies is a reckless risk for over-indebted consumers," added a debt counsellor, because "it is a possibility to receive goods immediately without any advance payment." The resulting adverse communication from companies occurs four to five months after the purchase: "the results of Christmas shopping take place in May" and are not acknowledged at the moment of ordering.

The normative outcomes for the formulation of the normative beliefs were based on question of individuals or groups who would think or approve whether the clients should or should not perform this behaviour. The outcome of the first interview is demonstrated in Table 70.

Injunctive referents	Descriptive referents
Family (5)	Family (3)
Spouse / partner (4)	Family "everything is possible!" (1)
Close friends (3)	Anarchistic peer group (in particular for adolescent) (1)
Children (2)	
Neighbour (2)	
E-Commerce experienced people (1)	
Postman (notice of different reminder letters) (1)	

Table 70: injunctive and descriptive referents for payment on time

Source: Mentions of debt counsellors; number in brackets representing number of mentions

Again, the debt counsellors reiterated the relevance of the chosen reference groups and their importance for payment behaviour. Over-indebted people were ashamed about their financial situation and avoided contact with debt collection

agencies or refused to answer telephone calls from mail-order companies regarding unpaid debts. Therefore, the direct social environment of the individual is impacted by the possible exposure of their financial situation and is of relevance because it exerts pressure on the individual. The counsellors emphasized the importance of the family of origin and its environmental conditioning. A debt counsellor asserted that parents model attitudes toward money, addiction, and consumer behaviour to their children through their life. During the second interview, a debt counsellor mentioned an interesting aspect regarding young individuals and their referent group. The overwhelming effect of the payment behaviour of the parents could sometimes be replaced by a teacher in school, if there was no relation to the parents. In particular, teachers in secondary school or training supervisors in professional education had an important influence on the behaviour of adolescents. Older individuals who are over-indebted withdraw from the social environment, because the topic over-indebtedness is sensitive and is combined with personal failure and shame.

In sum, the statements of the debt counsellors strengthen the finding of subjective norm as the main predictor of future payment behaviour. In general, women were more impacted in their payment behaviour by their social environment. One debt counsellor summarized this importance of social norms: "Friends, Partner, Parents – everyone pays attention that everything stays on a positive level, in order to prevent fear of failure, anxiety and stress situations."

The control factors for the formulation of the control beliefs were based on questions referring to any factors or circumstances that would make it easy and enable or conversely make it difficult or prevent their clients from paying every invoice from a mail-order company within the regular term of payment (see the outcome of the first interview in Table 71).

Positive factors	Negative factors
(Higher, fair) income (4)	Low income (4)
Financial training programme (3)	Unemployment (3)
Detailed payment plan (2)	Easy offer of payment upon instalment (1)
Flexible payment-options (instalments) (2)	Illness (1)
Foster secure payment-options (pay on delivery without extra charge) (1)	Over-indebted but do not know the scope (1)
Prevention of negative scoring at SCHUFA (1)	Garnishment of bank account (1)
Trust toward company (1)	High payroll deduction (1)
	Unrealistic vision of future income (1)
	Amount of open-debts (1)

**Table 71: Positive and negative factors for payment on time**

**Source: Mentions of debt counsellors; number in brackets representing number of mentions**

In sum, the factors for payment on time were relevant for the target population. The low-income situation, combined with unemployment remained the main factor determining payment on time. A debt counsellor emphasized the income difference between men and women. Women were, mostly, less well paid and had to be more flexible in working hours than men.

Regarding a training programme concerning money behaviour, the debt counsellors mentioned gender specific differences. Women were, typically, more involved in money management. Within their peer-groups they exchange knowledge about financial management. A debt counsellor mentioned that pursuing self-help is a more common in women than in men: “women feel the urge for a change in a difficult financial situation; however, they do not know what exactly to change and therefore request help.” In particular, individuals with little formal education do not know how to start, whereas people with higher education take care of money management. Moreover, arranging a structured payment plan is also dependent on the personal skills of the over-indebted consumer, because it is a combination of organization, maths, and an intuition for figures. In addition to following an arranged plan, clients should understand how to create such a plan in order to establish a financially healthy future. The general challenge of training and prevention is to address the suitable target

group. Debt counsellors mentioned that they offer a variety of complementary training and workshops; however, the demand is limited.

An important outcome of the study is that past behaviour has little influence on future payment behaviour. Past behaviour is the main criterion for the scoring of consumers in practice. However, both the analysis and literature review of the TPB emphasized its minor relevance. Each interviewed debt counsellor confirmed this finding. They offered an explanation covering two causes. First, within their meetings which have a therapeutic character, the debtors received a target-oriented financial training and their past behaviour was reviewed in-depth. The causes of being in a financially difficult situation were analysed and debt prevention arrangements were agreed. Second, based on “the power of reality”, debtors experience psychological relief when they realize that no legal action, e.g. a visit of a bailiff, will take place. Debtors feel a level of comfort they are able to return to a normal social environment (for instance, greetings of the neighbours because both visited the local festivity of the church and celebrate together). Previously they could not celebrate together, because the debtor could not afford to buy anything to eat and the shame of this prevented their involvement. Debt counsellors concluded that behaviour modification is possible in cases where debtors realized the benefits of following a plan. Those individuals were relieved of psychological stress due to wage garnishment and conflict with family. A debt counsellor concluded “we [the debtor and their social environment] could again sleep well” and added, that change is also dependent on the cause of over-indebtedness. If the cause is an external event (e.g., illness) the possibility of behavioural change might be improved.

The second and more significant extension was moral norms. The utility and importance for payment behaviour was also emphasized by the debt counsellors interviewed. It leads to mental stress, if a consumer buys something and an event occurs which prevents payment. However, a debt counsellor mentioned ambivalence within moral norms: on the one hand there are individuals who value that the vendor should receive money for their goods and service and on the other hand there are people who regard mail-order

companies as a financial institution and if the industry operates unwisely “they should pay dearly.”

#### **9.4 Summary**

This chapter emphasizes the change in the methodological approach of the study. Based on the literature review and continuous contact with debt counsellors, the need for theory exploration superseded the practical need for theory testing. The differences between SEM methods, covariance and variance based, were demonstrated and their original idea of application explained. The choice of the SEM method should primarily be determined by the goal of the analysis (testing vs. exploration), and not based on data characteristics and sample size.

The topic of over-indebtedness is highly sensitive and requires (in Germany) the support of local debt counsellors in order to gather different beliefs and norms. These gatekeepers afforded access to a population which the debt counsellors characterized by shame, helplessness, and sometimes an overestimation of one’s own capabilities. Different interviews at two stages within the study should provide greater credibility and confirmability (Shenton, 2004). Debt counsellors were a fruitful source of knowledge for this sensitive topic. The analysis of the extended TPB-model was supported by the opinions and experiences of the debt counsellors interviewed. In sum, the findings of the study were meaningful and significant. The results seem credible, confirmed through the ‘member checks’ provided by the debt counsellors; the results arise from research that others might judge dependable; there is attention to issues of confirmability, through the use of dual methods to reduce effects of investigator bias, and an admission of prior beliefs and assumptions, supported by a recognition of deficiencies in research methods applied and their potential effects. The methodological description should permit the integrity of the research results to be scrutinized. Transferability is another matter, as the context here has been very much a specifically German one. Comparison with other contexts may certainly be possible, and hopefully the theory extension may be tested elsewhere.



## **CHAPTER 10: CONCLUSION**

The previous chapters discussed the results of the TPB approach and the propositions covering the investigation of consumer over-indebtedness in Germany within the mail-order industry. The results were linked to the results of existing literature, theory, and practice. This chapter summarizes the findings and illustrates the contribution of this study to research and practice, outlines limitations, and provides a starting point for further research.

### **10.1 Summary of findings**

Investigation of over-indebtedness and exploring the TPB with its extensions moral norms and past behaviour to payment behaviour in the German mail-order industry indicate the following results:

1. The number of over-indebted individuals in Germany remained almost constant on an elevated level of approximately 6.5m people (3.9m with high intensity of over-indebtedness). Habitation, gender and age led to differences in its development.
2. The causes for becoming over-indebted are widespread, and in many cases include a combination of triggers. In general, there are five important factors that induce over-indebtedness: 1. Unemployment, 2. Divorce or death of partner, 3. Illness, addiction and accident, 4. Inefficient consumption behaviour 5. Poor income due to self-employment.
3. Over-indebted individuals overwhelmingly agreed to the increase of personal debt in Germany. Moreover, approximately 40% regard unpaid invoices as normal at mail-order companies and within German society respectively.
4. Payment intention, the expected antecedent of payment behaviour is significantly and positively associated with attitude towards the behaviour, subjective norms and perceived behavioural control.
5. The underlying beliefs are also significant and positively combined with both the TPB construct and payment intention.
6. Moral norms increased the explained variance of intention significantly and could be regarded as an important extension in this environment or studies with a moral perspective.

- Summary of findings -

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7. Although it was expected that past behaviour had no predictive utility, it also augmented the explanation of payment intention. Although it supported the practical importance, its influence was weak (compared to the importance in practice).
8. Both gender and specific circumstances (imprisonment) of the over-indebted consumer had a significant influence on payment intention and its underlying components (e.g. perceived behavioural control). Customer acquisition as well as the final invoice payment is gender specific. The management of mail-order companies should consider this outcome within their marketing activities and scoring systems.
9. An improved communication strategy of the mail-order companies with their customers could both increase customer satisfaction and the probability of invoice payment; however, the debtors could only pay small instalments over a longer period.
10. Payment by invoice will remain a financial risk for mail-order companies. An increase of prevention is linked with increasing fees and should be optimized on a local optimum. Factoring invoices could be a short-term solution. However, the company will be dependent on the scoring mechanisms of an external company and their probably different process of debt collection which could interfere with the customer relationship of the original company.

The results supported the relationships of the TPB and partially explained payment intention of over-indebted people. It also suggested that extensions of moral behaviour in questions were successful and helped to explain future behaviour. A gender specific approach contributes to the significance of payment intention within the mail-order industry, which by trend is utilized more by women. Debt counsellors supported the outcome of this study and demonstrated its significance for the German industry.

## 10.2 Reply to research questions

The first question of the study covered the development of over-indebtedness in Germany and searched for the causes.

*“Has debt increased among German consumers, and if so, why has it?”*

Debt was regarded within the context of over-indebtedness and emphasized the long-time perspective of unsatisfied liabilities. Solely people with profound financial problems were within the target group of this study. The answer to this question was an evaluation of external data, verified by the personal experience of debt counsellors. The quota of over-indebtedness is almost consistently high, which is alarming for a well-developed society and economy like Germany. An analysis of the main causes demonstrated both the strong influence of external factors, e.g. unemployment and illness, and behavioural aspects like bad management of the household budget. Causes like failure of self-employment and real-estate financing might cover both characteristics. This suggests that over-indebtedness is part of and a risk of modern society. Financial literacy and enhanced personal skills are more important part for everyday life. The social acceptance of credit usage and the pervasive availability of consumer credits for different kinds of goods or services led to a high level of consumer loans. In the case of external, unexpected influences, such as illness, unemployment, or short-time work, those credits might become a problem for the further financial situation.

The second research question covers the perception of debt amongst consumers.

*“How is debt perceived among German over-indebted consumers?”*

As mentioned, the number of over-indebted citizens is on a constant high level. The participants act on the assumption of increasing debts in Germany. Moreover, they are ambivalent to the relative normality of unpaid debts in society and mail-order industry respectively. In varying degrees, 40% had the opinion of normality and approximately 40% disagreed. Again it is alarming that

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- Reply to research questions -

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many over-indebted consumers regard unpaid invoices and debt respectively as normal. Additionally, the over-indebted consumers by trend stated that it would be against their moral principles not to pay their mail-order invoices on time. This suggests that the level of morality concerning payment on time is also ambivalent. Those who think that it is absolutely normal having unpaid-debts are probably less concerned with moral pressure than those who hold the opinion that it is not normal to pay invoices late. Whether or not this finding is influenced by continuous media coverage of pervasive debt and the financial crisis is not covered by this study. Professor Piorkowsky, an expert in household and consumption economics, supports the influence of the financial behaviour of the state on the consumption and credit behaviour.

The third question covered the explanation of payment behaviour. Due to the superiority of the TPB, it references to its constructs.

*“With reference to the theory of planned behaviour, what are the influences of beliefs, attitudes, subjective norms, and perceived behavioural control towards the intention of debt payment on time?”*

The specific influences were outlined in detail in the previous chapters. As this was the main part of the study, the data was analysed in detail to provide statistical validity and reliability. Interviews with debt counsellors supported the validity of the questionnaire and the final outcome. A tailored method of both qualitative and quantitative research provided an ideal approach of theory exploration. PLS-SEM fostered the predictive and explorative aim of this study through an extension of the existing TPB. In sum, the outcome demonstrated the main influence of social norms. Payment behaviour is influenced by individuals relevant to the debtors – direct or indirect. The payment behaviour of parents is an important factor for an individual’s future behaviour. Beliefs partly explained attitude, social norms and perceived behavioural control and demonstrated again the gender specific influence on payment intention. The addition of PBC to the TRA was also of great relevance for this study. It demonstrated the importance for debtors to possess the necessary resources and personal freedom to execute the final payment intention. As the TPB is a

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- Reply to research questions -

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framework, open for extensions, both moral norms and past behaviour are suitable to enhance the explanation. This suggests that behaviour, which has moral meaning, like this study, could be much better explained by adding those constructs to the original theory. Although past behaviour adds a weak impact on the results, it can be used to evaluate future behaviour and so has practical utility. Again, gender had an impact on the significance of the study – in general, the outcome is rather different. Whereas women are more influenced by their social environment (subjective norms) and attitudes toward the behaviour, men were influenced by perceived behavioural control. In other words, men's behaviour is determined by their control over the behaviour and how significant the active and passive pressure of important others is.

The final research question summarises the model's outcome and links to practical utility.

*“What lessons emerge to a) understand over-indebtedness in German consumers and b) enable the German mail-order industry to manage customer-debt in the future?”*

The previous section focused on the findings of the study relevant to the mail-order industry to improve understanding of over-indebtedness. The model's predictive utility supported the applicability of the TPB to payment behaviour within the mail-order industry. These findings outlined the risk factors of modern life and the influence of external factors such as unemployment or illness for the majority of consumers. Payment by small instalments is therefore fraught with risk due to long-term payment policies and potential changes in personal circumstances. The risk of paying by invoice with usually 14 days credit period is therefore lower than for payment by a consumer credit. However, due to lack of financial skills, invoices are a crucial risk for the industry. Several retailers respond to payment default in cooperation with a third party company. This might have advantages in handling and credit scoring but does not provide for a solution of the high level of over-indebtedness in the German society and limits possible future purchases. This study highlighted the “why” in payment behaviour and demonstrated that although past behaviour and future behaviour

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- Reply to research questions -

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might differ significantly, they are often applied in the industry as the primary criterion for payment prediction. The study outlined gender specific differences and provided links to practical utility (see 8.3). Furthermore, this study demonstrated that imprisoned debtors did not differ in their further payment behaviour and could be regarded equally in their customer relationship management – no specific predictive model seems necessary.

The question of managing customer debts in the future has a long-term perspective. It seems obvious that discovering the short-term influence of those findings was not possible because a typical mail-order company already uses rating systems to minimize the risk of a payment default. In case a mail-order company does not use both socio-demographic factors like age, gender, address validation and statistical methods like discriminant analysis, decision tree to score the customers, they should implement corresponding processes as soon as possible. However, moral norms had a significant influence on payment behaviour. In particular, mail-order companies were dependent of current moral norms concerning payment on time and the evolution of moral in the course of time. The outcome of this study demonstrates a significant level of over-indebtedness and should motivate mail-order companies to review their process of approving payment upon receipt or approving consumer credit and instalment plans. The use of third party companies could also been a possible solution to minimize risk. Not offering popular and established payment methods would have a negative impact on the segment of the consumer population with financial restrictions. The improvement of customer oriented communication in the reminder mechanism should also be reviewed within the mail-order company (see 8.5).

From a long-term perspective, the findings of this study demonstrated the potential success of fostering financial literacy. Through their association work, the mail-order companies could claim to focus on improving of personal skills (e.g. in schools) and the broadening of debt counselling possibilities. As mentioned, return on the investment in debt counselling is positive for both the economy and society. Addressing over-indebtedness and reducing the social taboo on this topic would certainly help to encourage pre-emptive consulting.

The mail-order industry could participate in prevention and support debt counsellors (e.g. comparable to campaigns like being illiterate in Germany).

Another long-term approach could focus on new scoring possibilities (see 8.4). The available information about consumers has increased in the last year via social media and related outlets. Technologies have improved both in processing speed and storage capacity and information about personal relationships are stored in social networks and might be available in the future. Innovations in technology and statistical techniques (e.g. neural networks) might extend the limited past behaviour approach and gain information about the current attitudes of consumers and opinions of important others for consumers, e.g., via social media. Therefore predictive analytics might also improve their significance and minimize risk. However, trust in people, living in a modern society, might always be a risk and customer debt could not be managed but rather minimized. Again, customer focused communication could be an important factor in achieving minor bad debts.

### **10.3 Conclusion**

The purpose of this study was to investigate consumer over-indebtedness in Germany and its influence on the mail-order industry. To address payment behaviour and its causes, this study explored the TPB and used appropriate extensions to the classical model approach (moral norms and past behaviour) in order to increase the predictive utility. As outlined in the literature review section, the TPB has been regarded as superior in many studies in explaining an individual's behaviour. However, this theoretical framework has never been applied to payment behaviour within the German mail-order industry. Against the background of a continuous growth of the mail-order business in Germany, combined with over-indebtedness on an alarming level, applying an adapted version of the TPB was appropriate and insightful. It closed a scientific gap regarding the exploration of payment behaviour applying the well-known TPB and unlocks the potential for further research in this scientific environment. It contributes to scientific knowledge in the field of social sciences and fosters the structural modelling approach within the TPB. It further demonstrates, that a small sample generates valid and statistically reliable results and therefore

highlights and supports the upcoming partial least square approach in science. Further research could be conducted without a large number of participants, which is of importance for sensitive topics like payment among over-indebted individuals. However, the choice of SEM, PLS or CB, should always address the goal of the study. This study was explorative in nature; therefore, PLS-SEM was the preferred analytical method. CB-SEM could be applied in a subsequent study to confirm the gender specific findings of the proposed model of the TPB for the mail-order industry.

Based on interviews with highly experienced debt counsellors, validated questionnaires were used for data-collection. The study finds that using structural equation modelling for not-imprisoned consumers' subjective norms was the best predictor of payment intention in general. That means that the social environment, familial influence in particular, had an important influence on an individual's behaviour. Improvement of financial literacy and support is of great importance to reduce personal limitations. Regarding practical utility, this study demonstrates that gender specific characteristics significantly determine behaviour. It led to the conclusion that more than one model exists and at least two rather different models or subtypes based on socio-economic factors. Moreover, it demonstrated that past behaviour and future behaviour has a weak but statistically significant correlation and influence. Debt counsellors emphasized their meetings as a probable explanation for this behavioural change and demonstrated the significance of debt counselling. In general, the outcome of this study offers additional connecting factors about payment behaviour within research and practice.

#### **10.4 Research Contribution**

This research addresses the explanation of payment behaviour and investigates the influence of beliefs, norms and socio-economic factors within the specific context of over-indebted consumers or potential clients with limited financial resources. Achieving the aim of this research contributes to existing literature by developing an extended model of the TPB of utility for the mail-order industry. The model predicts the influence of attitude towards payment on time, social norms and perceived behavioural control.



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- Research Contribution -

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In a practical perspective this study adds significant value to the understanding of over-indebtedness in Germany and its implication for the mail-order industry. Based on the constructs of the theory, the outcome of the study provides insights into important factors that determine behaviour or the “why”. It demonstrated the alarming debt situation of individuals over the last several years and the ambivalence regarding normality of having debts in Germany. On time payments of future invoices are of particular relevance, which was outlined and explained with reference and regard to current literature. The high level of  $R^2$  demonstrated the determination of the relevance of the applied theory and its outcome. Due to the multiple data generation approach, interviews at different stages and analytical output have much in common such as the importance of parents, having a job, and the need for improving financial literacy. It also demonstrated the significance and validity of this study. It further emphasized the complexity of payment behaviour and its personal influences. Payment of a mail-order invoice on time has no single specific causation, but typically is caused by a variety of factors. Gender is another significant expression of the complexity of influences on payment behaviour.

From a theoretical perspective, this study contributes to knowledge regarding the significance of the theory in general and its potential extensions. Each construct of the TPB was of predictive and explanatory utility regarding payment intention and therefore having a positive effect within the theory. This supports the findings in the literature review (e.g. Armitage & Conner, 2001). Through the underlying beliefs, the model partly explains the intention and does not simply predict it. In contrast to existing data, this study demonstrated the high relevance of subjective norms and the comparatively weak relevance of attitude for payment intention. As outlined in section 7.3, this is not a failure of the theory, rather it demonstrates the range of possible behavioural applications and provides a further example of moral driven behaviour and its impact. The strong model-fit supports the findings. However, as no other studies were done in the environment of the mail-order industry applying the TPB, an interesting question arises: is the strong effect of subjective norms typical for this industry where both trust and anonymity prevail? Further research in this field is highly recommended, as will be outlined in section 10.6.

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- Research Contribution -

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Through the extension of the common model of the TPB, it increased the explained variance in intention. Therefore this study demonstrated statistically supported utility especially within a moral situation covered by the study, where a company trusts a usually anonymous customer by sending goods without payment in advance. Finally, from a further theoretical perspective, using the consideration of perceived behavioural control, it demonstrated the superiority of the TPB against the TRA and further contributes to the emerging research in application and improvement of the Ajzen-Fishbein model (Ajzen, 1991). Payment behaviour of over-indebted people regarding future invoices could be investigated using the model. Additionally, the study demonstrated that the simple structure of the TPB led to significant findings and the outcomes, within social science, possess a high level of accuracy. The TPB provided a suitable framework for the exploration of a mail-order specific theoretical model. The gender specific analysis demonstrated that an overall valid TPB model could be influenced by gender and that a different construct of the TPB was of gender specific importance. This feature is another theoretical contribution because the standard model of the TPB does not have a socio-economic construct. In the mail-order industry, which by trend is more embraced by females, the model, explanation, and prediction of behaviour differs significantly in relation to gender. It further highlighted that specific circumstances like being imprisoned had minor consequences on the model and that the relatively new test model (like the conducted group comparison of Henseler (2012) in section 5.5) enables new possibilities for researchers to test expected differences.

On a methodological level this study operationalizes payment behaviour with an extended TPB. The available payment and mail-order industry studies in Germany did not use the theory and primarily applied descriptive statistics in their publications. Using a questionnaire based on a theoretical framework, this study employed an approach looking for the “why,” measured with defined constructs. Structural equation modelling guarantees the consideration of multiple interdependences of the constructs simultaneously and therefore solid results about the intention under observation. It is therefore well suited for this approach. Moreover, the application of PLS-SEM calculates valid and reliable path coefficients without any disadvantages for this kind of exploratory study.

### - Limitations of this research -

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Rather than CB-SEM, the powerful PLS approach is suitable for small sample sizes, distribution free and through its exploratory character well suited for the applied extension of theory. The strong model-fit measured by different figures demonstrated in sum the utility of both measurement method and analytical approach. The combination of interviews with a focus group, permanent contact with highly experience debt counsellors, and the use of an anonymous questionnaire with subsequent in depth analysis provided a reliable body of evidence. In sum, the interviews provided very important information for the quantitative analysis and the subsequent validity of the outcome.

In sum, the study contributes to a better understanding of payment behaviour in general, for gender specifics, and in special circumstances such as imprisoned individuals. It emphasizes the necessity of boosting financial skills within the population, the usefulness of debt-advising, the limits and potential development of scoring mechanisms, and the important role of communication in the customer relationship management. The mail-order industry continuously improves their knowledge about the behaviour of their clients in a marketing perspective to achieve a higher turnover using strategies such as neuromarketing, data-mining, and website tracking. However, little attention is given to the last stage in the buying process - payment. The study further highlights that over-indebted consumers generally intend to pay on time and that payment delay is against their principles. It is a refutation of the negative picture of an unwilling or dishonest client. The cycle of becoming over-indebted demonstrated the dependency of external influences and the little care people invest in their financial literacy.

#### **10.5 Limitations of this research**

All of the findings have to be assessed by the low response rate that is characteristic of this kind of research (Lea, Webley, & Walker, 1995). However, within the obtained sample of over-indebted individuals, this study shows the implication of both psychological and social factors contributing to debt in the imprisoned and not-imprisoned populations of consumers. Several potential limitations of this research are noteworthy. Although the proposed model had empirical support, additional research is recommended.

- Limitations of this research -

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First, the collected data is not based on a random sample of over-indebted consumers. A sample of voluntary respondents all over Germany was used, excluding customers who are (a) unable to read and write, (b) do not understand the German language, and (c) think about payment behaviour in the future (associativity). However, as outlined in section 5.1.2, the sample could be regarded as representative. The mix in responses of debtors all over Germany, submitted and addressed by different debt counsellors ensured a sample which best fits the whole population.

Second, questionnaires were used, which represents a limitation due to social desirability bias. However, due to the sensitive topic debt counsellors who worked as gatekeepers were used. Usually they personally handed the questionnaire to their clients and asked for participation. As there is a high basis of trust, understanding for their current situation and knowledge about their background (see 2.2), this approach ensured a high level of objectivity and minimized bias. Moreover, the causality between the variables and payment behaviour is uncertain. In order to reduce this limitation, each variable for the pilot and final questionnaire was based on recommendations and previous literature. In sum, this study was based on the outcome of a focus group, a validated pilot study, its final statistical proven measure, and the verification with subsequent interviews.

Third, the sample of imprisoned respondents had a gender specific bias. However, as the mail-order customer is by trend female and the respondents in Würzburg were arrested for minor delinquency, the sample seems appropriate. This restricts the sample to a specific group of crime and with an influence of gender. Nevertheless, an interview with a debt counsellor responsible for this prison, confirmed that this sample is suited for this kind of research and the mail-order business.

Fourth, the original theory ends with the prediction of behaviour and not with intention as regarded in this study. In general, according to “the theory, the primary antecedent of any behavior, including the behavior of paying money for a good, is the intention to perform the behavior in question (Ajzen, Brown, &

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- Limitations of this research -

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Rosenthal, 1996, p. 45).” However, there were different studies (e.g. LaPiere, 1934; Sheeran, 2002) demonstrating that final behaviour may differ from intention. Therefore it is important to keep in mind “that people often fail to act in accordance with their stated intentions (Ajzen, Brown, & Carvajal, 2004, p. 1108).” Ajzen, Brown, & Carvajal (2004, p. 1119) stated that a strong bias exists for “people to overestimate the likelihood that they will engage in a socially desirable behavior.” Therefore, the ability to directly observe future payment behaviour is beyond the reach of this study. That means a longitudinal study, testing whether the consumers pay their invoices on time should be undertaken. As the process of getting information from consumers was demanding, for debt counsellors and the researcher, the response rate of a following second questionnaire would be further limited. An alternative approach could be a distinction between intention and behaviour measurement: debt counsellors who arrange a detailed payment plan for their client could ask about payment intention towards mail-order companies and in a later stage confirm the behaviour by verification of the account statement. Although this has ethical issues it could minimize the bias of self-reports (see e.g. Davies, Foxall, & Pallister, 2002; Veludo-de-Oliveira, Pallister, & Foxall, 2013 for measuring behaviour through observation).

Fifth, the behaviour under surveillance was on time payment, which means usually within 14 days after delivery. Based on practical experience, several customers forgot to pay or deliberately waited for a payment reminder – typically free of charge. This was not part of the study, but probably will have an impact on the general statement of payment behaviour within the mail-order industry. Further research could investigate why invoices are not paid immediately or only after one or several payment reminders.

Sixth, there was no information about the kind of purchase decision given. Within this study it is assumed that payment underlies a rational act of ordering via mail-order. Therefore, it is not regarded whether the product was of high or low involvement character. Moreover, it was not regarded whether the company is important for the consumer due to follow-up purchases. The level of involvement with the product and the brand or advertisement could influence

### - Suggestions for further research -

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payment behaviour. It seems vital that a consumer – over-indebted or not – who favours a special brand would pay the invoices due to getting supplied with orders in the future. Further research on this approach is highly recommended, based on the research of e.g. Zaichkowsky (1985), Zaichkowsky (1994), Mittal (1989), Foxall and Pallister (1998), Pallister, Wang, and Foxall (2007) for measuring involvement and its application respectively influence. As the study is focused on mail-order payment behaviour, the behaviour for other open debts would potentially be different, for instance towards the state or an energy supplier. However, this is not the scope and question of this study. The difference in payment behaviour depending on different industries could be a continuative question to be researched in another thesis.

Finally, it is again very important to clarify that only over-indebted customers are included in the research population. That means a statement about or comparison with not over-indebted consumers is not possible at this time and could be the subject of another study. The absence of similar studies makes no comparable outcome available. However, the findings of this study were validated through an in depth statistical check and compared to analogous studies in order to enhance the universality of the findings.

Although there are limitations, this study is the first to investigate payment behaviour within the mail-order industry in Germany. In order to best provide contextual and statistical validity, the data gathering process had several stages where debt counsellors were involved. They provide helpful information and validated its instruments. As the topic is sensitive, their help and support is a requirement for the success of such a study and presented advantages regarding the reliability of the responses.

#### **10.6 Suggestions for further research**

The study provides insights for both imprisoned and not imprisoned over-indebted people and demonstrated their beliefs, norms and factors influencing payment intention. As a starting point, for further research it provides an overview about the challenges and characteristics within this target group and the value of interviews with debt counsellors for this kind of exploratory study.

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The extension of moral norms and past behaviour to the original model of the TPB has to be highlighted. Moreover, the superiority over the TRA, the influence of gender specifics and the significance of subjective norms were of value for other studies covering payment in the mail-order industry. The following research approaches are suggested based on the current findings.

PLS-SEM should be the method of choice for exploratory investigation, like this study, where typically smaller sample sizes are available and needed for the PLS algorithm. The CB-SEM approach should only be applied for theory confirmation and usually based on a large sample size. Therefore, differences in the outcome in applying the CB-SEM approach to the proposed theoretical model of this study will not be expected (see e.g. Weiber & Mühlhaus, 2010). The application is suggested and would emphasize the significance of the adapted model of the TPB for the mail-order industry regarding payment behaviour of over-indebted consumers. Although the statistically valid outcome of the standard TPB-model could be regarded as high ( $R^2 = 35\%$ ), 65% of the variance in intention is not explained. Therefore different beliefs, attitudes, social norms, and control factors could be investigated by further interviews with debt counsellors and different types of debtors in order to assess the probable increase of the  $R^2$ . A qualitative approach, conducting in-depth interviews with debtors could gain insights in the answering the “why?” and the underlying beliefs. The tailored approach of both qualitative and quantitative research revealed high significance; therefore, it is recommended for future studies. Although I favour quantitative research, interviews with experienced practitioners emphasized aspects which were not obvious and of great significance, in particular for a study with a sensitive and moral topic. I recognize the value of qualitative research and could highly recommend conducting different interviews to get new information and profound insights. Qualitative research could enhance quantitative research, and vice versa. Moreover, as done in this study, extensions might further increase the utility of the TPB and could be investigated. The meta-analysis of Conner and Armitage (1998) could be a profound basis for useful add-ons. Trust has been identified in other TPB studies as of vital importance. It would be interesting to examine how trust influences debtors’ behavioural intention within their planned

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behaviour, which builds on the research of Pavlou and Fygenson (2006), Yousafzai, Foxall, and Pallister (2010) and Javadi, Dolatabadi, Nourbakhsh, Poursaeedi, and Asadollahi (2012).

As already mentioned, the relationship between the willingness to pay invoices of mail-order companies on time as expressed by intention, and the final payment behaviour should be further investigated. Based on the findings of Godin, Conner, and Sheeran (2005) who argued that studies that showed an impact of moral norms on intentions did not show an analogous impact on behaviour, at least when intentions were included in the analyses, further investigation regarding this discrepancy is needed (the work of Conner, Lawton, Parker, Chorlton, Manstead, and Stradling (2007) and Godin, Gagnon, & Lambert (2003) could be a profound start).

Furthermore this study covered German over-indebted consumers. That means, further research should investigate the possibility of extending this study and generalizing across types of persons, settings, and times, as stated by Cook & Campbell (1979). Therefore, as a mail-order company typically handles more than the German market, an application of this model and its outcome comparison with consumers in other nations is highly recommended. Although states like Austria or Switzerland speak the same language, their payment behaviour and corresponding attitudes, beliefs or moral norms might differ significantly (see e.g. Yang, Lester, and James (2007) for comparing British and American attitude towards e-commerce). The suggestion of Chudry, Foxall, and Pallister (2011) for the UK is also valid for the culturally heterogeneous society of Germany. In order to examine the generality of the model, different ethnic groups, which vary in their attitude towards payment, could be investigated. Furthermore, as mentioned in section 6.1.1, foreign and immigrated individuals in Germany are over-represented among over-indebted consumers. The question of different attitudes and beliefs among mail-order customers in Germany might be based on ethnic or religious characteristics. Therefore it would be fruitful to investigate the mail-order payment intention under the aspect of ethnicity, culture and religion, thereby building on the research of



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Dodgson, Henly, Duckett, and Tarrant (2003), Eid and Diener (2001) and Farooq and Pallister (2002).

The aspect of paying on time could also be influenced by different aspects (e.g. credit-card usage). Within a further study, different theories, especially the technology acceptance model, could be important factor in the context of immediate payment via PayPal or credit-card (the findings of Yousafzai, Foxall, and Pallister (2010) could be a starting point for a comparison within the online banking environment). Figure 16 provided an overview of different theories and models which probably influence payment behaviour. Therefore their utility could be investigated within a further study.

A possibility for further research of payment behaviour was offered by Trafimow and Finlay (1996) who argued that people might also be under attitudinal or normative control with regard to behaviours. Therefore, the examination of differences of people whose actions are motivated predominantly by attitudes and those whose actions are driven primarily by subjective norms would be of interest, in order to ensure findings were not based due to a high percentage of normative or attitudinal controlled respondents in the sample (see also Finlay, Trafimow, & Jones, 1997; Armitage & Conner, 2001).

Further investigation regarding the influence of debt behaviour of states and the relationship to consumer perception is highly recommended. And finally, as outlined in section 3.3.4, dishonest behaviour is another problem for the mail-order and retail industry. Due to the analogy of bad-debts and shoplifting, this field should be further investigated. It would be important to know whether dishonest aspects of behaviour are determined by the same factors as honest payment behaviour.



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## **APPENDIX**

- Questionnaire for the debt counsellors -

## A-1 QUESTIONNAIRE FOR THE DEBT COUNSELLORS

### A-1.1 English version



Tobias Aubele  
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0931/35118986



**Title of Study:** Investigation of consumer over-indebtedness within German mail-order industry using the theory of planned behaviour

Dear Debt Counsellors,

As you know, shopping possibilities for your clients vary widely. An increasingly popular shopping experience is ordering by mail-order (e.g., via the internet or catalogue).

The present survey is part of an investigation that is intended to establish some of the reasons why mail-order consumers pay or do not pay within the regular term of payment. By “payment on time” we mean paying every invoice from a mail-order company within the regular term of payment (usually 14 days), except in cases of flawed or incomplete delivery.

By taking part in this study, you may help other consumers manage their financial skills. There are no known risks associated with taking part in this study.

Please read each question carefully and answer it to the best of your ability. There are no correct or incorrect responses; we are merely interested in your personal point of view.

This is only for doctoral research and not on behalf of any commercial organization or of the German Government. All responses to this survey are completely confidential. This questionnaire will be destroyed as soon as all data has been collected.

The University of Gloucestershire Research Ethics Subcommittee has approved this study. Please contact Dr Malcolm MacLean, Chair of the Research Ethics Subcommittee at the University of Gloucestershire, if you have any concerns (e-mail: [mmaclean@glos.ac.uk](mailto:mmaclean@glos.ac.uk)).

**Please be assured that the information you provide in this study is absolutely anonymous and will be handled carefully.**

Thank you for your participation in this study.

Tobias Aubele  
Doctoral Student

## Informed consent form

Title of Project	Investigation of consumer over-indebtedness within German mail-order industry using the theory of planned behaviour		
Principal Investigators	Tobias Aubele Doctoral student and research Associate Gartenstr. 5, 88471 Laupheim tobiasaubele@connect.glos.ac.uk 0151/44334875		
Lead doctoral supervisor	Janine Dermody University of Gloucestershire The Park Cheltenham GL50 2RH, UK +44 (0) 1242 714066 jdermody@glos.ac.uk		
I understand that I have been asked to participate in a research study.	Yes	No	
I have read the above information about the study.	Yes	No	
The benefits and risks involved in taking part in this research study have been explained to me.	Yes	No	
I understand that I am free to contact the research team to ask questions and discuss this study.	Yes	No	
I understand that I am free to refuse participation, or to withdraw from the study at any time, without consequence, and that my information will be withdrawn at my request.	Yes	No	
I understand that the research team will keep my data confidential. I understand that only Tobias Aubele and his supervisors will have access to the raw data I provide.	Yes	No	

- Questionnaire for the debt counsellors -

We are conducting a study of payment behaviour in Germany. We are interested in the reasons why mail-order customers do or do not pay within the regular term of payment. We would appreciate your responses to some questions about this. There are no right or wrong answers. Please tell us what you really think from the perspective of your clients based on your experience as a debt counsellor.

Please take a few minutes to list your thoughts about the following questions.

(1) What do you see as the advantages for your clients of paying every invoice from a mail-order company within the regular term of payment?

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(2) What do you see as the disadvantages for your clients of paying every invoice from a mail-order company within the regular term of payment?

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(3) What else comes to mind when you think from the perspective of your clients about paying every invoice from a mail-order company within the regular term of payment?

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- Questionnaire for the debt counsellors -

When it comes to paying every invoice from a mail-order company within the regular term of payment, there might be individuals or groups who would think your clients should or should not perform this behaviour.

(4) Please list the individuals or groups who would approve or think your clients should pay every invoice from a mail-order company within the regular term of payment.

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(5) Please list the individuals or groups who would disapprove or think your clients should not pay every invoice from a mail-order company within the regular term of payment.

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(6) Sometimes, when we are not sure what to do, we look to see what others are doing. Please list the individuals or groups who, after an urgent demand for payment, are most likely to pay every invoice from a mail-order company within the regular term of payment following a request to pay.

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- Questionnaire for the debt counsellors -

(7) Please list the individuals or groups who, after an urgent demand for payment, are least likely to pay every invoice from a mail-order company within the regular term of payment following a request to pay.

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(8) Please list any factors or circumstances that would make it easy or enable your clients to pay every invoice from a mail-order company within the regular term of payment.

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(9) Please list any factors or circumstances that would make it difficult or prevent your clients from paying every invoice from a mail-order company within the regular term of payment.

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- Questionnaire for the debt counsellors -

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Type of organization (private / public): \_\_\_\_\_

Experience as a debt counsellor in years: \_\_\_\_\_

Clients per year: \_\_\_\_\_

Estimated percentage of clients with debts to mail-order-companies:

\_\_\_\_\_

Main causes for over-indebtedness (in order of importance):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Thank you very much!

- Questionnaire for the debt counsellors -

## A-1.2 German version



Tobias Aubele  
Gartenstr. 5, 88471 Laupheim  
[tobiasaubele@connect.glos.ac.uk](mailto:tobiasaubele@connect.glos.ac.uk)  
0931/35118986



**Titel der Studie:** Untersuchung der Überschuldung von Konsumenten der Versandhandelsbranche unter Nutzung der Theorie des geplanten Verhaltens.

Sehr geehrte Damen und Herren,  
die Einkaufsmöglichkeiten für Ihre Klienten werden immer größer. Ein wachsend beliebtes Einkaufserlebnis ist die Bestellung per Versandhandel (wie z.B. über das Internet oder per Katalog).

Die vorliegende Umfrage ist Teil einer Untersuchung, die Gründe erörtern soll, warum Versandhandelskunden innerhalb der regulären Zahlungsfrist zahlen oder nicht zahlen. Unter fristgerechter Zahlung verstehen wir die Zahlung innerhalb der regulären Zahlungsfrist (normalerweise 14 Tage), mit Ausnahme von unvollständigen oder fehlerhaften Lieferungen.

Durch Ihre Teilnahme, können Sie dazu beitragen, dass andere Konsumenten ihre finanziellen Fähigkeiten verbessern können. Es sind keine bekannten Risiken für Sie verbunden, wenn Sie an dieser Befragung teilnehmen.

Bitte lesen Sie jede Frage sorgfältig und beantworten Sie diese nach bestem Wissen. Es gibt weder richtig noch falsche Antworten, wir sind nur interessiert nach Ihrer Sicht der Dinge.

Diese Arbeit ist Teil einer Doktorarbeit und nicht im Namen einer Handelsorganisation oder der deutschen Regierung. Alle Antworten dieser Umfrage sind vollständig vertraulich. Der Fragebogen wird nach der Datensammlung vernichtet werden.

Die Ethikkommission des Forschungsbereiches der Universität von Gloucestershire hat diese Studie genehmigt. Kontaktieren Sie bitte Dr Malcolm MacLean, den Vorsitzenden der Ethikkommission des Forschungsbereiches der Universität von Gloucestershire, wenn sie irgendwelche Bedenken haben (E-mail: [mmaclean@glos.ac.uk](mailto:mmaclean@glos.ac.uk)).

**Seien Sie versichert, dass alle Informationen, die Sie zu dieser Studie beitragen, absolut anonym sind und sorgfältig behandelt werden.**

Vielen Dank für Ihre Teilnahme an dieser Studie.

Tobias Aubele  
Doktorand

## Informationsbestätigung

Titel der Studie	Untersuchung der Überschuldung von Konsumenten der Versandhandelsbranche unter Nutzung der Theorie des geplanten Verhaltens.		
Leitender Befragender	Tobias Aubele Doktorand und wissenschaftlicher Mitarbeiter Gartenstr. 5, 88471 Laupheim tobiasaubele@connect.glos.ac.uk 0151/44334875		
Leitende Doktormutter	Janine Dermody University of Gloucestershire The Park Cheltenham GL50 2RH, UK +44 (0) 1242 714066 jdermody@glos.ac.uk		
Ich habe verstanden, dass ich gefragt wurde, an einer Studie teilzunehmen.	Ja	Nein	
Ich habe die obigen Informationen zur Studie gelesen.	Ja	Nein	
Den Nutzen und die Risiken verbunden mit der Teilnahme wurden mir erklärt.	Ja	Nein	
Ich habe verstanden, dass es mir offen steht, das Forschungsteam zu kontaktieren und Fragen zu stellen und die Studie zu diskutieren.	Ja	Nein	
Ich habe verstanden, dass ich die Teilnahme verweigern, oder zu jedem Zeitpunkt ohne Konsequenzen wieder aussteigen kann und dass meine Informationen auf mein Verlangen zurückgezogen werden.	Ja	Nein	
Ich habe verstanden, dass das Forschungsteam Ihre Daten vertraulich behandeln werden. Ich habe verstanden, dass nur Tobias Aubele und seine Leiten Zugang zu den Rohdaten bekommt.	Ja	Nein	

- Questionnaire for the debt counsellors -

Wir führen eine Studie über das Zahlungsverhalten in Deutschland durch. Uns interessieren die Gründe, warum Versandhandelskunden Ihre Rechnung nicht in der regulären Frist bezahlen. Wir würden uns über Ihre Antworten zu einigen Fragen hierzu freuen. Es gibt hierbei weder falsche noch richtige Antworten. Bitte erzählen Sie uns, basierend auf Ihrer Erfahrung als Schuldnerberater, was Sie aus Sicht Ihrer Klienten hierzu denken.

Bitte nehmen Sie sich ein paar Minuten Zeit, um auf diese Fragen zu antworten.

(1) Was sehen Sie als Vorteil aus Sicht der Klienten, wenn Ihre Klienten jede Rechnung innerhalb der normalen Zahlungsfrist des Versandhändlers bezahlen?

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(2) Was sehen Sie als Nachteil aus Sicht der Klienten, wenn Ihre Klienten jede Rechnung innerhalb der normalen Zahlungsfrist des Versandhändlers bezahlen?

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(3) Was verbinden Sie bzw. was kommt Ihnen in den Sinn, wenn Sie an das Thema der Zahlung einer Rechnung des Versandhändlers innerhalb der normalen Zahlungsfrist denken?

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- Questionnaire for the debt counsellors -

Wenn die Fälligkeit einer Rechnung bei einem Versandhändler innerhalb der regulären Zahlungsfrist ansteht, wird es ggf. Gruppen oder Menschen geben, die denken, dass Ihre Klienten die Rechnung pünktlich bezahlen sollen oder auch nicht.

(4) Nennen Sie Personen oder Gruppen, die es gutheißen oder denken, dass Ihre Klienten die Rechnung pünktlich zahlen sollen.

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(5) Nennen Sie Personen oder Gruppen, die es ablehnen oder nicht denken, dass die Rechnung pünktlich gezahlt werden soll.

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(6) Oftmals, wenn Menschen nicht sicher sind, was sie tun sollen, schauen wir was andere machen. Welche Personen oder Gruppen würden wohl Ihre Rechnung nach einer Zahlungsaufforderung bei einem Versandhändler pünktlich bezahlen?

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- Questionnaire for the debt counsellors -

(7) Welche Personen oder Gruppen würden Ihre Rechnung bei einem Versandhändler nach einer Zahlungsaufforderung wahrscheinlich nicht pünktlich bezahlen?

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(8) Bitte nennen Sie Faktoren oder Bedingungen welche es Ihren Klienten erleichtern oder vereinfachen würden, die Rechnung bei einem Versandhändler pünktlich zu bezahlen?

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(9) Bitte nennen Sie Faktoren oder Bedingungen welche es Ihren Klienten erschweren oder unmöglich machen würde, die Rechnung bei einem Versandhändlern pünktlich zu bezahlen?

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- Questionnaire for the debt counsellors -

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Einrichtungstyp (privat / öffentlich): \_\_\_\_\_

Erfahrung als Schuldnerberater in Jahren: \_\_\_\_\_

Geschätzte Anzahl an Beratungen / Jahr: \_\_\_\_\_

%-Anteil von Kunden mit Schulden im Versandhandel: \_\_\_\_\_

Hauptgründe für Überschuldung (nach Bedeutsamkeit):

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Vielen Dank für Ihre Mühe.

- Pilot Questionnaire -

## A-2 PILOT QUESTIONNAIRE

### A-2.1 English version



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c/o Hochschule Würzburg-Schweinfurt  
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[tobiasaubele@connect.glos.ac.uk](mailto:tobiasaubele@connect.glos.ac.uk)  
0931/35118986



**Title of Study:** Investigation of consumer over-indebtedness within German mail-order industry using the theory of planned behaviour

Dear Participant,

As you know, shopping possibilities vary widely. An increasingly popular shopping experience is ordering by mail-order (e.g., via the internet or catalogue).

The present survey is part of an investigation that is intended to establish some of the reasons why mail-order consumers pay, or do not pay, within the regular term of payment. By "payment on time" we mean paying every invoice from a mail-order company (e.g., Amazon, Otto, Zalando) within the regular term of payment (typically 14 days after delivery), except in cases of flawed or incomplete delivery.

**By taking part in this study, you may help other consumers improve their financial skills. There are no known risks associated with taking part in this study.**

Please read each question carefully and answer it to the best of your ability. There are no correct or incorrect responses; we are merely interested in your personal point of view.

This is only for doctoral research and not on behalf of any commercial organization or of the German Government. All responses to this survey are completely confidential. Your debt counsellor has nothing to do with this study and will not see your responses. This questionnaire will be destroyed as soon as all data has been collected.

The University of Gloucestershire Research Ethics Subcommittee has approved this study. Please contact Dr Malcolm MacLean, Chair of the Research Ethics Subcommittee at the University of Gloucestershire, if you have any concerns (e-mail: [mmaclean@glos.ac.uk](mailto:mmaclean@glos.ac.uk)).

**Please be assured that the information you provide in this study is absolutely anonymous and will be handled carefully.**

Thank you for your participation in this study.

Tobias Aubele  
Doctoral Student

## Informed consent form

Title of Project	Investigation of consumer over-indebtedness within German mail-order industry using the theory of planned behaviour
Principal Investigator	Tobias Aubele Doctoral student and research Associate at the University of applied sciences Würzburg-Schweinfurt Sanderheinrichsleitenweg 20, 97074 Würzburg tobiasaubele@connect.glos.ac.uk 0931/35118986
Lead doctoral supervisor	Janine Dermody University of Gloucestershire The Park Cheltenham GL50 2RH, UK jdermody@glos.ac.uk
<b>Accept</b>	
I understand that I have been asked to participate in a research study.	
I have read the above information about the study.	
I know the benefits involved in taking part in this research study and I know that there are no known risks taking part.	
I understand that I am free to contact the research team to ask questions and discuss this study.	
I understand that I am free to refuse participation, or to withdraw from the study at any time, without consequence, and that my information will be withdrawn at my request.	
I understand that the research team will keep my data confidential. I understand that only Tobias Aubele and his supervisors will have access to the raw data I provide.	

**Please confirm the above questions by ticking (✓) each question.**

## - Pilot Questionnaire -

**Instructions**

Many questions in this survey make use of rating scales from 1 to 7. Please circle the number that best describes your opinion. For example, if you were asked to rate the weather in your hometown (e.g., Berlin) on such a scale, the 7 places should be interpreted as follows:

The weather in Berlin is:

good:   1  :   2  :   3  :   4  :   5  :   6  :   7  : bad  
 extremely    quite    slightly    neither    slightly    quite    extremely

If you think the weather in Berlin is extremely good, then you would circle the number 1, as follows:

The weather in Berlin is:

good:   1  :   2  :   3  :   4  :   5  :   6  :   7  : bad

If you think the weather in Berlin is quite bad, then you would circle the number 6, as follows.

The weather in Berlin is:

good:   1  :   2  :   3  :   4  :   5  :   6  :   7  : bad

If you think the weather in Berlin is slightly good, then you would circle the number 3.

The weather in Berlin is:

good:   1  :   2  :   3  :   4  :   5  :   6  :   7  : bad

If you think the weather in Berlin is neither good nor bad, then you would circle the number 4.

The weather in Berlin is:

good:   1  :   2  :   3  :   4  :   5  :   6  :   7  : bad

(Example adapted from Ajzen, 2012)

In making your ratings, please remember the following points:

- \* **Be sure to answer all items – do not omit any.**
- \* **Never circle more than one number on a single scale.**
- \* **While some statements may sound similar, there are subtle differences in what is being asked.**

**[Current mail-order customer]**

Approximate orders from mail-order companies in the last 12 months:

- none    1-5    6-10    11-20    more than 20

Current unpaid debts to mail-order companies:

- Yes    No

**Important notice:**

**The following statements refer to you paying new invoices (due to new orders) from mail-order companies within the regular term of payment.**

**[Behavioural Belief Strength]**

1. My paying every invoice within the regular term of payment would reduce hassles with mail-order companies

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

2. My paying every invoice within the regular term of payment would help me to get further approval from the mail-order company to pay by instalments or invoice

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

3. My paying every invoice within the regular term of payment would allow a better overview of my financial status

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

4. My paying every invoice within the regular term of payment would help me to avoid further debts

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

5. My paying every invoice within the regular term of payment would not raise the invoice amount due to arrears fees or court fees.

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

- Pilot Questionnaire -

6. My paying every invoice within the regular term of payment would have an interest disadvantage because the money is no longer in my bank account. I try to pay as late as possible.

likely: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unlikely

**[Outcome Evaluations]**

7. Having fewer hassles with mail-order companies is

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

8. Furthermore being offered a choice of instalment or invoice as payment methods to mail-order companies is

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

9. Getting a better overview of my financial status is

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

10. Avoiding further debt is

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

11. No increase of the invoice amount due to arrears fees or court fees is

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

12. Getting an interest disadvantage due to payment on time is

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

**[Motivation to Comply]**

13. When it comes to paying every invoice within the regular term of payment, I will do what my spouse or partner thinks I should do

agree: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: disagree

14. When it comes to paying every invoice within the regular term of payment, I will do what my close friends think I should do

agree: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: disagree

- Pilot Questionnaire -

15. When it comes to paying every invoice within the regular term of payment, I will do what my debt counsellor thinks I should do

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

16. When it comes to paying every invoice within the regular term of payment, I will do what my family (parents / children) think/s I should do

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

**[Injunctive Belief Strength]**

17. My spouse or partner thinks that I should pay every invoice within the regular term of payment

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

18. My close friends think that I should pay every invoice within the regular term of payment

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

19. My debt counsellor thinks that I should pay every invoice within the regular term of payment

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

20. My family (parents / children) think that I should pay every invoice within the regular term of payment

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

**[Identification with referent]**

21. When it comes to paying every invoice within the regular term of payment, how much do you want to be like your close friends?

very much: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: not at all

22. When it comes to paying every invoice within the regular term of payment, how much do you want to be like your parents?

very much: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: not at all

- Pilot Questionnaire -

23. When it comes to paying every invoice within the regular term of payment, how much do you want to be like your spouse or partner?

very much: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: not at all

**[Descriptive Belief Strength]**

24. My close friends will pay within the regular term of payment.

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

25. My parents will pay within the regular term of payment.

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

26. My spouse or partner will pay within the regular term of payment.

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

**[Control Belief Strength]**

27. Having a fairly paid job would enable me to pay within the regular term of payment

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

28. Getting training on financial management would enable me to pay within the regular term of payment

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

29. Arranging a detailed payment plan would enable me to pay within the regular term of payment

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

30. Having a regular, projectable income would enable me to pay within the regular term of payment

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

**[Power of Control Factors]**

31. I will have a fairly paid job within the regular term of payment of new mail-order orders.

likely: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: unlikely



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32. I will have taken part in a financial management training programme within the regular term of payment of new mail-order orders.

likely: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unlikely

33. I will be getting goods and services only by cash on delivery or advance payment when ordering new mail-order goods or services.

likely: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unlikely

34. I will have a regular, projectable income within the regular term of payment of new mail-order orders.

likely: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unlikely

**[Direct Attitude Scale]**

35. I consider my paying every invoice within the regular term of payment

honest: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : dishonest

useful: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : useless

foolish: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : wise

important: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unimportant

**[Direct Perceived Norm Scales]**

39. Most people who are important to me think that I should pay every invoice within the regular term of payment.

true: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : false

40. Most people whose opinions I value think that I should pay every invoice within the regular term of payment.

probable: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : improbable

41. Most people I respect and admire think that I should pay every invoice within the regular term of payment.

likely: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unlikely

42. Most people like me pay every invoice within the regular term of payment.

agree: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : disagree

**[Direct Perceived Control Scales]**

43. I am confident that I can pay every invoice within the regular term of payment.

true: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

44. My paying every invoice within the regular term of payment is completely up to me.

agree: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : disagree

45. If I really wanted to, I could pay every invoice within the regular term of payment.

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

46. Paying every invoice within the regular term of payment is under my control.

Not at all: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : completely

**[Behavioural Intention Scale]**

47. I intend to pay every invoice within the regular term of payment.

definitely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : definitely do not

48. I have decided to pay every invoice within the regular term of payment.

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

49. I am willing to pay every invoice within the regular term of payment.

false: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : true

50. I plan to pay every invoice within the regular term of payment.

agree: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : disagree

**[Moral obligation]**

51. I would feel guilty if I did not pay every invoice from mail-order companies within the regular term of payment.

false: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : true

- Pilot Questionnaire -

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52. Not paying every invoice from mail-order companies within the regular term of payment goes against my moral principles

false: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : true

53. For me, it would be morally wrong to not pay every invoice from a mail-order companies within the regular term of payment.

false: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : true

**[Past Behaviour]**

54. In the past 12 months, I have paid every invoice within the regular term of payment.

never: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : always

**[Perception of debt]**

55. I think having unpaid debt to mail-order companies is normal in German society.

false: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : true

56. In general, I think having unpaid debt has increased in Germany.

false: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : true

57. In general, I think having unpaid debt is quite normal in our society.

false: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : true

- Pilot Questionnaire -

**[Statistical information]**

First 3 Digits of the ZIP-code: \_\_\_ \_\_\_ \_\_\_ (e.g. 970 for 97074 Würzburg)

Gender:  female  male

Year of birth: \_\_\_\_\_

Education level:

College degree  professional education  no vocational training

Employment:

Full time  Part time  Unemployed  Retired  Student/at school

Main causes of over-indebtedness:

- Unemployment  Separation/divorce  Personal business failure  
 Sickness/addiction  Inefficient housekeeping  Death of partner  
 Failure of real-estate financing  other causes

Current stage in consulting process:

debt consultation  insolvency consultation  ongoing legal process

**[Comments]**

**Thank you for your time. If you have any comments to add to this survey, please enter them below.**

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## A-2.2 Scoring key and order of the questionnaire

Question Numbers	Response format	Items requiring reverse scoring	Items requiring internal consistency analysis	Items requiring multiplication	Construct measured
1 to 6	1 to 7			1x7; 2x8; 3x9; 4x10; 5x11; 6x12	Behavioural Belief Strength
7 to 12	1 to 7	12			Outcome Evaluations
13 to 16	1 to 7			13x17; 14x18; 15x19; 16x20	Motivation to comply
17 to 20	1 to 7				Injunctive Belief Strength
21 to 23	1 to 7			21x24; 22x25; 23x26;	Identification with referent
24 to 26	1 to 7				Descriptive Belief Strength
27 to 30	1 to 7			27x31; 28x32; 29x33; 30x34;	Control Belief Strength
31 to 34	1 to 7				Control Belief Power
35 to 38	1 to 7	foolish	35 to 38		Attitudes, direct measure
39 to 42	1 to 7		39 to 42		Subjective norms, direct measure
43 to 46	1 to 7	46	43 to 46		Perceived behavioural control, direct measure
47 to 50	1 to 7	49	47 to 50		Generalized intention
51 to 53	1 to 7	51 to 53	51 to 53		Moral Obligation
54	1 to 7	54			Past behaviour
55 to 57	1 to 7	55 to 57			Perception of debt

Table 72: Scoring key of the questionnaire

Source: adapted from Francis, et al. (2004, p. 39)

## - Pilot Questionnaire -

## Order of the questions in the pilot questionnaire

Order in the systematically ordered questionnaire (see above) based on the components of the TPB	Nr. in the pilot questionnaire	Order in the systematically ordered questionnaire (see above) based on the components of the TPB	Nr. in the pilot questionnaire
1	16	30	36
2	14	31	44
3	18	32	45
4	20	33	46
5	22	34	47
6	24	35	1a
7	17	36	1b
8	15	37	1c
9	19	38	1d
10	21	39	2
11	23	40	5
12	25	41	8
13	26	42	11
14	27	43	4
15	28	44	10
16	29	45	6
17	40	46	13
18	41	47	3
19	42	48	12
20	43	49	7
21	30	50	9
22	31	51	48
23	32	52	50
24	37	53	53
25	38	54	54
26	39	55	51
27	33	56	49
28	34	57	52
29	35		

Table 73: Order of the questionnaire

- Pilot Questionnaire -

A-2.3 German version



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**Titel der Studie:** Untersuchung der Überschuldung von Konsumenten der Versandhandelsbranche unter Nutzung der Theorie des geplanten Verhaltens.

Sehr geehrte Damen und Herren,

wie Sie wissen, werden die Einkaufsmöglichkeiten immer größer. Ein wachsend beliebtes Einkaufserlebnis ist die Bestellung per Versandhandel (wie z.B. über das Internet oder per Katalog).

Die vorliegende Umfrage ist Teil einer Untersuchung, die Gründe erörtern soll, warum Versandhandelskunden innerhalb der regulären Zahlungsfrist zahlen oder nicht zahlen. Unter fristgerechter Zahlung verstehen wir die Bezahlung jeder Rechnung eines Versandhändlers (z. B. Amazon, Otto, Zalando) innerhalb der regulären Zahlungsfrist (normalerweise 14 Tage nach Warenlieferung), mit Ausnahme von unvollständigen oder fehlerhaften Lieferungen.

**Durch Ihre Teilnahme, können Sie dazu beitragen, dass andere Konsumenten ihre finanziellen Fähigkeiten verbessern können. Es sind keine bekannten Risiken verbunden, wenn Sie an dieser Befragung teilnehmen.**

Bitte lesen Sie jede Frage sorgfältig und beantworten Sie diese nach bestem Wissen.

Es gibt weder richtige noch falsche Antworten, wir sind lediglich an Ihrer Sicht der Dinge interessiert.

Diese Arbeit ist Teil einer Doktorarbeit und nicht im Namen einer Handelsorganisation oder der deutschen Regierung. Alle Antworten dieser Umfrage sind vollständig vertraulich. Der Fragebogen wird nach der Datensammlung vernichtet werden.

Die Ethikkommission des Forschungsbereiches der Universität von Gloucestershire hat dieser Studie zugestimmt bzw. genehmigt. Kontaktieren Sie bitte Dr. Malcolm MacLean, den Vorsitzenden der Ethikkommission des Forschungsbereiches der Universität von Gloucestershire, wenn Sie irgendwelche Bedenken haben (E-mail: [mmaclean@glos.ac.uk](mailto:mmaclean@glos.ac.uk)).

**Seien Sie versichert, dass alle Informationen, die Sie zu dieser Studie beitragen, absolut anonym sind und sorgfältig behandelt werden.**

Vielen Dank für Ihre Teilnahme an der Studie.

Tobias Aubele  
Doktorand

## Informationsbestätigung

Titel der Studie	Untersuchung der Überschuldung von Konsumenten der Versandhandelsbranche unter Nutzung der Theorie des geplanten Verhaltens.
Leitender Befragender	Tobias Aubele Doktorand und wissenschaftlicher Mitarbeiter an der Hochschule Würzburg-Schweinfurt Sanderheinrichsleitenweg 20, 97074 Würzburg tobiasaubele@connect.glos.ac.uk Tel. 0931/35118986
Leitende Doktormutter	Janine Dermody University of Gloucestershire The Park Cheltenham GL50 2RH, UK jdermody@glos.ac.uk
<b>Akzeptiert</b>	
Ich habe verstanden, dass ich gefragt wurde, an einer Studie teilzunehmen.	
Ich habe die obigen Informationen zur Studie gelesen.	
Ich kenne den Nutzen, der mit der Teilnahme an dieser Studie verbunden ist und ich weiß, dass keine bekannten Risiken mit der Teilnahme bestehen.	
Ich habe verstanden, dass es mir offen steht, das Forschungsteam zu kontaktieren, Fragen zu stellen und die Studie zu diskutieren.	
Ich habe verstanden, dass ich die Teilnahme verweigern, oder zu jedem Zeitpunkt ohne Konsequenzen wieder aussteigen kann und dass meine Informationen auf mein Verlangen zurückgezogen werden.	
Ich habe verstanden, dass das Forschungsteam meine Daten vertraulich behandeln wird. Ich habe verstanden, dass nur Tobias Aubele und sein Doktorvater/-mutter Zugang zu den Rohdaten bekommt.	

**Bitte bestätigen Sie die obigen Fragen durch das Abhacken (✓) jeder Frage.**



## - Pilot Questionnaire -

**Hinweise**

Viele Fragen dieser Studie nutzen 7-stufige Beurteilungsskalen. Bitte markieren Sie die Nummer, die am besten Ihre Meinung beschreibt. Zum Beispiel: wenn Sie gefragt werden, wie Sie das Wetter in Ihrer Heimatstadt (bspw. Berlin) auf solch einer Skala beurteilen, sollen die 7 Stufen folgendermaßen interpretiert werden:

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht  
 äußerst    ziemlich    gering    weder noch    gering    ziemlich    äußerst

Wenn Sie denken, dass das Wetter in Berlin äußerst gut ist, dann würden Sie die Nummer 1 folgendermaßen umranden oder ankreuzen:

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Wenn Sie denken, dass das Wetter in Berlin ziemlich schlecht ist, dann würden Sie die Nummer 6 folgendermaßen umranden oder ankreuzen.

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Wenn Sie denken, dass das Wetter in Berlin geringfügig gut ist, würden Sie die Nummer 3 umranden oder ankreuzen.

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Wenn Sie denken, dass das Wetter in Berlin weder gut noch schlecht ist, dann würden Sie die Nummer 4 umranden oder ankreuzen.

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Während Sie Ihre Beurteilung vornehmen, bedenken Sie bitte folgende Punkte:

- \* **Bitte beantworten Sie alle Fragen – lassen Sie keine aus.**
- \* **Bitte nie mehr als eine Zahl bei einer Frage umranden oder ankreuzen.**
- \* **Obwohl manche Aussagen ähnlich klingen, sind feine Unterschiede in der Frage vorhanden.**

- Pilot Questionnaire -

**[Current mail-order customer]**

Ungefähre Anzahl Bestellungen bei Versandhändlern in den letzten 12 Monaten:

keine    1-5    6-10    11-20    mehr 20

Aktuell offene Zahlungsverpflichtungen gegenüber Versandhändlern:

Ja    Nein

**Wichtiger Hinweis:**

**Die folgenden Aussagen beziehen sich auf die Bezahlung von neuen Rechnungen (infolge neuer Bestellungen) bei Versandhändlern innerhalb der regulären Zahlungsfrist.**

**Es handelt sich somit nicht um die Bezahlung von aktuell offenen Rechnungen von bereits getätigten Bestellungen.**

**[Behavioural Belief Strength]**

1. Meine Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde mir Ärger mit Versandhandelsfirmen reduzieren.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

2. Meine Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde mir helfen, weiterhin die Möglichkeit der Ratenzahlung und Rechnung durch die Versandhandelsunternehmen angeboten zu bekommen.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

3. Meine Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde mir einen besseren Überblick über meine finanziellen Möglichkeiten bieten.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

- Pilot Questionnaire -

4. Meine Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde mir helfen, weiteren Schuldenaufbau zu vermeiden.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

5. Meine Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde den Rechnungsbetrag nicht durch Mahngebühren oder Gerichtskosten erhöhen.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

6. Durch meine Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist hätte ich einen Zinsnachteil, da das Geld nicht mehr auf meinem Konto ist. Ich versuche daher so spät wie möglich zu bezahlen.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

**[Outcome Evaluations]**

7. Weniger Ärger mit Unternehmen zu haben ist

gut: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlecht

8. Ratenzahlung oder Rechnung als Zahlungsart weiterhin von den Versandhändlern angeboten zu bekommen ist

gut: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlecht

9. Einen besseren Überblick über meine finanzielle Lage zu haben ist

gut: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlecht

10. Weitere Schulden zu vermeiden ist

gut: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlecht

11. Kein weiterer Schuldenaufbau durch Mahngebühren und Gerichtskosten ist

gut: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlecht

- Pilot Questionnaire -

12. Einen Zinsnachteil auf meinem Konto aufgrund der pünktlichen Bezahlung zu bekommen ist

gut: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: schlecht

**[Motivation to Comply]**

13. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, werde ich tun, was mein Ehepartner oder Partner denkt, was ich tun sollte.

zustimmen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: widersprechen

14. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, werde ich tun, was meine engsten Freunde denken, was ich tun sollte.

zustimmen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: widersprechen

15. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, werde ich tun, was mein Schuldenberater denkt, was ich tun sollte.

zustimmen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: widersprechen

16. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, werde ich tun, was meine Familie (Eltern/Kinder) denken, was ich tun sollte

zustimmen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: widersprechen

**[Injunctive Belief Strength]**

17. Mein Ehepartner oder Partner denkt, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte

wahrscheinlich: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unwahrscheinlich

18. Meine engsten Freunde denken, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte

wahrscheinlich: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unwahrscheinlich

19. Meine Schuldnerberater denkt, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte  
wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

20. Meine Familie (Eltern / Kinder) denken, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte  
wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

**[Identification with referent]**

21. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, wie sehr wollen Sie sein wie Ihre engsten Freunde?  
sehr stark: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : gar nicht

22. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, wie sehr wollen Sie sein wie Ihre Familie (Eltern / Kind)?  
sehr stark: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : gar nicht

23. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, wie sehr wollen Sie sein wie Ihr Ehepartner oder Partner?  
sehr stark: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : gar nicht

**[Descriptive Belief Strength]**

24. Innerhalb der regulären Zahlungsfrist werden meine engsten Freunde die Rechnung bei Versandhändlern bezahlen  
wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

25. Innerhalb der regulären Zahlungsfrist werden meine Familie (Eltern / Kinder) die Rechnung bei Versandhändlern bezahlen  
wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

- Pilot Questionnaire -

26. Innerhalb der regulären Zahlungsfrist wird mein Ehepartner oder Partner die Rechnung bei Versandhändlern bezahlen

wahrscheinlich: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: unwahrscheinlich

**[Control Belief Strength]**

27. Einen fair bezahlten Job zu haben, würde mich in die Lage versetzen, die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen

zustimmen: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: widersprechen

28. Eine Schulung über den Umgang mit finanziellen Mitteln würde mich in die Lage versetzen, die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen

zustimmen: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: widersprechen

29. Ein detaillierter Zahlungsplan würde mich in die Lage versetzen, die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen

zustimmen: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: widersprechen

30. Ein festes, planbares Einkommen würde mich in die Lage versetzen, die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen

zustimmen: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: widersprechen

**[Power of Control Factors]**

31. Ich werde einen fair bezahlten Job haben, wenn die fristgerechte Zahlung einer Rechnung eines Versandhändlers ansteht.

wahrscheinlich: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: unwahrscheinlich

32. Ich werde eine Schulung über den Umgang mit finanziellen Mitteln absolviert haben, wenn die fristgerechte Zahlung einer Rechnung eines Versandhändlers ansteht.

wahrscheinlich: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: unwahrscheinlich

33. Ich werde einen detaillierten Zahlungsplan aufgestellt haben, wenn die fristgerechte Zahlung einer Rechnung eines Versandhändlers ansteht.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

34. Ich werde ein festes, planbares Einkommen haben, wenn die fristgerechte Zahlung einer Rechnung eines Versandhändlers ansteht.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

**[Direct Attitude Scale]**

35. Für mich ist die Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist

ehrlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unehrlich

nützlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : nutzlos

dumm: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlau

wichtig: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwichtig

**[Direct Perceived Norm Scales]**

39. Die meisten Menschen, die mir wichtig sind, denken, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte.

wahr: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : falsch

40. Die meisten Menschen, deren Meinung ich schätze, denken, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

41. Die meisten Menschen, die ich respektiere und bewundere, denken, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

42. Die meisten Menschen, die so sind wie ich, bezahlen jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist.

zustimmen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : widersprechen

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**[Direct Perceived Control Scales]**

43. Ich bin überzeugt, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen kann

wahr: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : falsch

44. Die Bezahlung von jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist liegt völlig in meiner Hand.

zustimmen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : widersprechen

45. Wenn ich wirklich möchte, könnte ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

46. Die Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ist unter meiner Kontrolle.

gar nicht: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : komplett

**[Behavioural Intention Scale]**

47. Ich habe vor jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

definitiv: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : definitiv nicht

48. Ich habe mich entschieden, jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

49. Ich bin gewillt jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

falsch: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : wahr

50. Ich plane jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

zustimmen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : widersprechen



**[Moral obligation]**

51. Ich würde mich schuldig fühlen, wenn ich nicht jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen würde.

falsch: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : wahr

52. Keine Bezahlung jeder Rechnung bei Versandhändler innerhalb der regulären Zahlungsfrist verstößt gegen meine moralischen Prinzipien.

falsch: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : wahr

53. Für mich würde es moralisch falsch sein, nicht jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

falsch: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : wahr

**[Past Behaviour]**

54. In den letzten 12 Monaten, habe ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlt.

nie: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : immer

**[Perception of debt]**

55. Ich denke, dass unbezahlte Rechnungen im Versandhandel in unserer Gesellschaft normal sind.

zustimmen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : widersprechen

56. Im Allgemeinen denke ich, dass Schulden zu haben in Deutschland zugenommen hat.

falsch: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : wahr

57. Ich denke, dass unbezahlte Rechnungen in unserer Gesellschaft normal sind.

zustimmen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : widersprechen

- Pilot Questionnaire -

**[Statistical information]**

Erste drei Ziffern Ihrer Postleitzahl: \_\_ \_\_ \_\_ (z. Bsp. 970 für 97074 Würzburg)

Ihr Geschlecht:  Frau  Mann

Ihr Geburtsjahr: \_\_\_\_\_ (z. Bsp. 1969)

Ihre höchste Berufsausbildung:

Studium  Ausbildung  keine abgeschlossene Berufsausbildung

Ihre derzeitige Berufliche Tätigkeit:

Vollzeit  Teilzeit  Arbeitslos  Rente  Student/Schüler

Hauptgrund Ihrer Überschuldung:

Arbeitslosigkeit  Trennung / Scheidung  gescheiterte Selbstständigkeit  
 Krankheit/Sucht  unwirtschaftliche Haushaltsführung  Tod des Partners  
 gescheiterte Immobilienfinanzierung  sonstige Gründe

Ihre aktuelle Phase in der Beratung:

Schuldnerberatung  Insolvenzberatung  im laufenden Verfahren

**Kommentare / Hinweise**

Wenn Sie Anmerkungen zur Studie geben möchten, können Sie dies nachfolgend angeben.

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**Herzlichen Dank für Ihre Teilnahme.**

- Final Questionnaire -

## A-3 FINAL QUESTIONNAIRE

### A-3.1 English version



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0931/35118986



**Title of Study:** Investigation of consumer over-indebtedness within German mail-order industry using the theory of planned behaviour

Dear Madam, Dear Sir,

The present survey is part of an investigation that is intended to establish some of the reasons why mail-order consumers pay, or do not pay, within the regular term of payment. By “payment on time” we mean paying every invoice from a mail-order company (e.g., Amazon, Otto, Zalando) within the regular term of payment (typically 14 days after delivery), except in cases of flawed or incomplete delivery.

**By taking part in this study, you may help other consumers improve their financial skills as this academic work will explain payment behaviour in depth. There are no known risks associated with taking part in this study. Answering takes approximately 10 minutes.**

Please read each question carefully and answer it to the best of your ability. There are no correct or incorrect responses; we are merely interested in your personal point of view.

This is only for doctoral research and not on behalf of any commercial organization or of the German Government. All responses to this survey are completely confidential. Your debt counsellor has nothing to do with this study and will not see your responses. This questionnaire will be destroyed as soon as all data has been collected.

The University of Gloucestershire Research Ethics Subcommittee has approved this study. Please contact Dr Malcolm MacLean, Chair of the Research Ethics Subcommittee at the University of Gloucestershire, if you have any concerns (e-mail: [mmaclean@glos.ac.uk](mailto:mmaclean@glos.ac.uk)).

**Please be assured that the information you provide in this study is absolutely anonymous and will be handled carefully.**

Thank you for your participation in this study.

Tobias Aubele  
Doctoral Student

## Informed consent form

Title of Project	Investigation of consumer over-indebtedness within German mail-order industry using the theory of planned behaviour
Principal Investigator	Tobias Aubele Doctoral student and research Associate at the University of applied sciences Würzburg-Schweinfurt Sanderheinrichsleitenweg 20, 97074 Würzburg tobiasaubele@connect.glos.ac.uk 0931/35118986
Lead doctoral supervisor	Janine Dermody University of Gloucestershire The Park Cheltenham GL50 2RH, UK jdermody@glos.ac.uk
<b>Accept</b>	
I understand that I have been asked to participate in a research study.	
I have read the above information about the study.	
I know the benefits involved in taking part in this research study and I know that there are no known risks taking part.	
I understand that I am free to contact the research team to ask questions and discuss this study.	
I understand that I am free to refuse participation, or to withdraw from the study at any time, without consequence, and that my information will be withdrawn at my request.	
I understand that the research team will keep my data confidential and that only Tobias Aubele and his supervisors will have access to the raw data I provide.	

**Please confirm the above questions by ticking (✓) each question.**

## - Final Questionnaire -

**Instructions**

Many questions in this survey make use of rating scales from 1 to 7. Please circle the number that best describes your opinion. For example, if you were asked to rate the weather in your hometown (e.g., Berlin) on such a scale, the 7 places should be interpreted as follows:

The weather in Berlin is:

good:   1   :   2   :   3   :   4   :   5   :   6   :   7   : bad  
           extremely    quite    slightly    neither    slightly    quite    extremely

If you think the weather in Berlin is extremely good, then you would circle the number 1, as follows:

The weather in Berlin is:

good:   ①   :   2   :   3   :   4   :   5   :   6   :   7   : bad

If you think the weather in Berlin is quite bad, then you would circle the number 6, as follows.

The weather in Berlin is:

good:   1   :   2   :   3   :   4   :   5   :   ⑥   :   7   : bad

If you think the weather in Berlin is slightly good, then you would circle the number 3.

The weather in Berlin is:

good:   1   :   2   :   ③   :   4   :   5   :   6   :   7   : bad

If you think the weather in Berlin is neither good nor bad, then you would circle the number 4.

The weather in Berlin is:

good:   1   :   2   :   3   :   ④   :   5   :   6   :   7   : bad

In making your ratings, please remember the following points:

- \* **Be sure to answer all items – do not omit any.**
- \* **Never circle more than one number on a single scale.**
- \* **While some statements may sound similar, there are subtle differences in what is being asked.**

**Important notice:**

The following statements refer to you paying new invoices (due to new orders) from mail-order companies within the regular term of payment.

It therefore applies to **payment of prospective (future) orders** and does *not* involve the payment of current unpaid invoices for orders already executed.

**[Behavioural Belief Strength]**

1. Paying every invoice from mail-order companies within the regular term of payment would avoid / reduce hassles with mail-order companies.

[AT\_BO\_1\_8\_N]

likely: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unlikely

2. Paying every invoice from mail-order companies within the regular term of payment would allow a better overview of my financial status.

[AT\_BO\_2\_20\_N]

likely: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unlikely

3. Paying every invoice from mail-order companies within the regular term of payment would not raise the invoice amounts due to arrears fees or court fees. [AT\_BO\_3\_27\_N]

likely: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unlikely

**[Outcome Evaluations]**

4. Having no / less hassles with mail-order companies is [AT\_BS\_1\_13\_N]

bad: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: good

5. Getting a better overview of my financial status is [AT\_BS\_2\_17\_N]

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

6. Increase in debt due to arrears fees or court fees is [AT\_BS\_3\_32\_N]

good: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: bad

**[Motivation to Comply]**

7. When it comes to paying every invoice from mail-order companies within the regular term of payment, I will do what my **spouse** or **partner** thinks I should do. [SN\_BO\_1\_6\_N]

likely: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: unlikely

8. The opinion of my **close friends** regarding my payment behaviour with mail-order companies is important to me. [SN\_BO\_2\_14\_N]

Very much: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: not at all

**[Injunctive Belief Strength]**

9. My **spouse** or **partner** thinks that I should pay every invoice from mail-order companies within the regular term of payment. [SN\_BS\_1\_21\_N]

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

10. My **close friends** are of the opinion that I should pay every invoice from mail-order companies within the regular term of payment. [SN\_BS\_2\_26\_N]

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

**[Identification with referent]**

11. When it comes to paying every invoice from mail-order companies within the regular term of payment, how much do you want to be like your **parents**? [SN\_BO\_3\_33\_N]

not at all: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: very much

**[Descriptive Belief Strength]**

12. My **parents** pay their invoices from mail-order companies within the regular term of payment. [SN\_BS\_3\_29\_N]

probable: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: improbable

**[Control Belief Strength]**

13. Having a fairly paid job enables me to pay the invoices from mail-order companies within the regular term of payment. [PBC\_BO\_1\_9\_N]

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

- Final Questionnaire -

14. A training programme on financial management would help me to plan my orders in advance and to pay the invoices from mail-order companies within the regular term of payment. [PBC\_BO\_2\_15\_N]

agree: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : disagree

15. Arranging a detailed payment plan would help me to plan my orders in advance and to pay the invoices from mail-order companies within the regular term of payment. [PBC\_BO\_3\_22\_N]

agree: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : disagree

16. Having a regular, projectable income enables me to pay the invoices from mail-order companies within the regular term of payment. [PBC\_BO\_4\_28\_N]

disagree: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : agree

**[Power of Control Factors]**

17. Having a fairly paid job would make it [PBC\_BS\_1\_25\_N]

easy: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : difficult

to pay an invoice from a mail-order company within the regular term of payment.

18. Having attended a training programme on financial management would make it [PBC\_BS\_2\_18\_N]

difficult: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : easy

to pay an invoice from a mail-order company within the regular term of payment.

19. Having arranged a detailed payment plan makes it [PBC\_BS\_3\_30\_N]

easy: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : difficult

to pay an invoice from a mail-order company within the regular term of payment.



20. Having a regular, projectable income makes it [PBC\_BS\_4\_34\_N]

easy: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : difficult  
to pay an invoice from a mail-order company within the regular term of  
payment.

**[Direct Attitude Scale]**

21. I consider paying every invoice within the regular term of payment  
[AT\_D\_1\_1\_N]

honest: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : dishonest  
useless: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : useful  
foolish: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : wise  
important: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unimportant  
bad: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : good  
pleasant: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unpleasant

**[Direct Perceived Norm Scales]**

22. Most people who are important to me are of the opinion that I should pay  
every invoice from mail-order companies within the regular term of  
payment. [SN\_D\_1\_2\_N]

likely: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : unlikely

23. Most people whose opinions I value [SN\_D\_2\_10\_N]

pay: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : pay not  
every invoice from mail-order companies within the regular term of  
payment.

24. It is expected of me to pay every invoice from mail-order companies  
within the regular term of payment. [SN\_D\_3\_16\_N]

disagree: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : agree

**[Direct Perceived Control Scales]**

25. Paying every invoice from mail-order companies within the regular term  
of payment is [PBC\_D\_1\_3\_N]

impossible: \_\_\_1\_\_\_ : \_\_\_2\_\_\_ : \_\_\_3\_\_\_ : \_\_\_4\_\_\_ : \_\_\_5\_\_\_ : \_\_\_6\_\_\_ : \_\_\_7\_\_\_ : possible  
for me.

- Final Questionnaire -

26. The decision to pay every invoice from mail-order companies within the regular term of payment is completely up to me. [PBC\_D\_2\_11\_N]

true: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

27. If I wanted to, I could pay every invoice from mail-order companies within the regular term of payment. [PBC\_D\_3\_31\_N]

true: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

**[Behavioural Intention Scale]**

28. I intend to pay every invoice from mail-order companies within the regular term of payment. [I\_D\_1\_4\_N]

definitely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : definitely do not

29. I have decided to pay every invoice from mail-order companies within the regular term of payment. [I\_D\_2\_23\_N]

definitely do not: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : definitely

30. I plan to pay every invoice from mail-order companies within the regular term of payment. [I\_D\_3\_36\_N]

definitely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : definitely do not

**[Moral obligation]**

31. I would feel guilty if I did not pay every invoice from a mail-order company within the regular term of payment. [MO\_1\_5\_N]

true: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

32. It goes against my principles, not paying every invoice from a mail-order company within the regular term of payment. [MO\_2\_19\_N]

true: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : false

33. It would be morally wrong for me to not pay every invoice from a mail-order company within the regular term of payment. [MO\_3\_35\_N]

likely: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unlikely

**[Past Behaviour]**

34. In the past 12 months I have paid every invoice from mail-order companies within the regular term of payment. [PB\_1\_24\_N]

never: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: always

**[Perception of debt]**

35. I think having unpaid invoices from mail-order companies is normal. [PD\_1\_7\_N]

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

36. In general, I think having unpaid debts has increased in Germany.

[PD\_2\_12\_N]

disagree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: agree

37. I think not paying invoices is normal in our society. [PD\_3\_37\_N]

agree: \_\_\_1\_\_\_:\_\_\_2\_\_\_:\_\_\_3\_\_\_:\_\_\_4\_\_\_:\_\_\_5\_\_\_:\_\_\_6\_\_\_:\_\_\_7\_\_\_: disagree

**[Current mail-order customer]**

Approximate number of orders from mail-order companies in the last 12 months:

none    1-5    6-10    11-20    more than 20

Current unpaid debts to mail-order companies:

Yes    No

- Final Questionnaire -

**[Statistical information]**

First 3 Digits of the ZIP-code: \_\_\_ \_\_\_ \_\_\_ (e.g. 970 for 97074 Würzburg)

Your gender:  female  male

Your year of birth: \_\_\_\_\_

Your highest education level:

College degree  professional education  no vocational training

Your current employment status:

Full time  Part time  Unemployed  Retired  Student/at school

Main cause of your over-indebtedness:

Unemployment  Separation/divorce  Personal business failure

Sickness/addiction  Inefficient housekeeping  Death of partner

Failure of real-estate financing  other causes

Your current stage in the consulting process:

debt consultation  insolvency consultation  ongoing legal process

**[Comments]**

**Thank you for your time. If you have any comments to add to this survey, please enter them below.**

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## - Final Questionnaire -

## A-3.2 Scoring and shortcut-definition of the questionnaire

Question Numbers	Response format	Items requiring reverse scoring	Items requiring internal consistency analysis	Items requiring multiplication	Construct measured
1 to 3	1 to 7	1 to 3		1x4; 2x5; 3x6	Behavioural Belief Strength
4 to 6	1 to 7	5			Outcome Evaluations
7 to 8	1 to 7	7, 8		7x9; 8x10	Motivation to comply
9 to 10	1 to 7	10			Injunctive Belief Strength
11	1 to 7			11x12	Identification with referent
12	1 to 7	12			Descriptive Belief Strength
13 to 16	1 to 7	14, 15		13x17; 14x18; 15x19; 16x20;	Control Belief Strength
17 to 20	1 to 7	17, 19, 20			Control Belief Power
21 (a-f)	1 to 7	a, d, f	21 (a-f)		Attitudes, direct measure
22 to 24	1 to 7	22, 23	22 to 24		Subjective norms, direct measure
25 to 27	1 to 7	26, 27	25 to 27		Perceived behavioural control, direct measure
28 to 30	1 to 7	28, 30	28 to 30		Generalized intention
31 to 33	1 to 7	31 to 33	31 to 33		Moral Obligation
34	1 to 7				Past behaviour
35 to 37	1 to 7	35, 36	35 to 37		Perception of debt

Table 74: Scoring of the final questionnaire

Source: adapted from Francis, et al. (2004, p. 39)

## - Final Questionnaire -

## Order of the questions in the final questionnaire

Order in the systematically ordered questionnaire (see above) based on the components of the TPB	SPSS Code	Nr. in the final questionnaire	Order in the systematically ordered questionnaire (see above) based on the components of the TPB	SPSS Code	Nr. in the final questionnaire
1	AT_BO_1_8_N	8	20	PBC_BS_4_34_N	34
2	AT_BO_2_20_N	20	21	AT_D_1_1_N	1
3	AT_BO_3_27_N	27	22	SN_D_1_2_N	2
4	AT_BS_1_13_N	13	23	SN_D_2_10_N	10
5	AT_BS_2_17_N	17	24	SN_D_3_16_N	16
6	AT_BS_3_32_N	32	25	PBC_D_1_3_N	3
7	SN_BO_1_6_N	6	26	PBC_D_2_11_N	11
8	SN_BO_2_14_N	14	27	PBC_D_3_31_N	31
9	SN_BS_1_21_N	21	28	I_D_1_4_N	4
10	SN_BS_2_26_N	26	29	I_D_2_23_N	23
11	SN_BO_3_33_N	33	30	I_D_3_36_N	36
12	SN_BS_3_29_N	29	31	MO_1_5_N	5
13	PBC_BO_1_9_N	9	32	MO_2_19_N	19
14	PBC_BO_2_15_N	15	33	MO_3_35_N	35
15	PBC_BO_3_22_N	22	34	PB_1_24_N	24
16	PBC_BO_4_28_N	28	35	PD_1_7_N	7
17	PBC_BS_1_25_N	25	36	PD_2_12_N	12
18	PBC_BS_2_18_N	18	37	PD_3_37_N	37
19	PBC_BS_3_30_N	30			

Table 75: Order and SPSS-Code of the final questionnaire

## Belief scores:

AT_B_1	AT_BO_1_8_N*AT_BS_1_13_N
AT_B_2	AT_BO_2_20_N*AT_BS_2_17_N
AT_B_3	AT_BO_3_27_N*AT_BS_3_32_N
SN_B_1	SN_BO_1_6_N*SN_BS_1_21_N
SN_B_2	SN_BO_2_14_N*SN_BS_2_26_N
SN_B_3	SN_BO_3_33_N*SN_BS_3_29_N
PBC_B_1	PBC_BO_1_9_N*PBC_BS_1_25_N
PBC_B_2	PBC_BO_2_15_N*PBC_BS_2_18_N
PBC_B_3	PBC_BO_3_22_N*PBC_BS_3_30_N
PBC_B_4	PBC_BO_4_28_N*PBC_BS_4_34_N

Table 76: Belief scores of the final questionnaire

- Final Questionnaire -

A-3.3 German version



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**Titel der Studie:** Untersuchung der Überschuldung von Konsumenten der Versandhandelsbranche unter Nutzung der Theorie des geplanten Verhaltens.

Sehr geehrte Dame, sehr geehrter Herr,

die vorliegende Umfrage ist Teil einer Untersuchung, die Gründe erörtern soll, warum Versandhandelskunden innerhalb der regulären Zahlungsfrist zahlen oder nicht zahlen. Unter fristgerechter Zahlung verstehen wir die Bezahlung jeder Rechnung eines Versandhändlers (z. B. Amazon, Otto, Zalando) innerhalb der regulären Zahlungsfrist (normalerweise 14 Tage nach Warenlieferung), mit Ausnahme von unvollständigen oder fehlerhaften Lieferungen.

**Durch Ihre Teilnahme, können Sie dazu beitragen, dass andere Konsumenten evtl. ihre finanziellen Fähigkeiten zukünftig verbessern können, da diese wissenschaftliche Arbeit das Zahlungsverhalten detaillierter erklären möchte. Es sind keine bekannten Risiken für Sie verbunden, wenn Sie an dieser Befragung teilnehmen. Die Beantwortung dauert ca. 10 Minuten.**

Bitte lesen Sie jede Frage sorgfältig und beantworten Sie diese nach bestem Wissen.

Es gibt weder richtige noch falsche Antworten, wir sind an Ihrer Sicht der Dinge interessiert.

Diese Arbeit ist Teil einer Doktorarbeit und nicht im Namen einer Handelsorganisation oder der deutschen Regierung. Alle Antworten dieser Umfrage sind vollständig vertraulich. Der Fragebogen wird nach der Datensammlung vernichtet.

Die Ethikkommission des Forschungsbereiches der Universität von Gloucestershire hat dieser Studie zugestimmt bzw. genehmigt. Kontaktieren Sie bitte Dr. Malcolm MacLean, den Vorsitzenden der Ethikkommission des Forschungsbereiches der Universität von Gloucestershire, wenn Sie irgendwelche Bedenken haben (E-mail: [mmaclean@glos.ac.uk](mailto:mmaclean@glos.ac.uk)).

**Seien Sie versichert, dass alle Informationen, die Sie zu dieser Studie beitragen, absolut anonym sind und sorgfältig behandelt werden.**

Vielen Dank für Ihre Teilnahme an der Studie.

Tobias Aubele  
Doktorand

## Informationsbestätigung

Titel der Studie	Untersuchung der Überschuldung von Konsumenten der Versandhandelsbranche unter Nutzung der Theorie des geplanten Verhaltens.
Leitender Befragender	Tobias Aubele Doktorand und wissenschaftlicher Mitarbeiter an der Hochschule Würzburg-Schweinfurt Sanderheinrichsleitenweg 20, 97074 Würzburg tobiasaubele@connect.glos.ac.uk Tel. 0931/35118986
Leitende Doktormutter	Janine Dermody University of Gloucestershire The Park Cheltenham GL50 2RH, UK jdermody@glos.ac.uk
<b>Akzeptiert</b>	
Ich habe verstanden, dass ich gefragt wurde, an einer Studie teilzunehmen.	
Ich habe die obigen Informationen zur Studie gelesen.	
Ich kenne den Nutzen, der mit der Teilnahme an dieser Studie verbunden ist und ich weiß, dass keine bekannten Risiken mit der Teilnahme bestehen.	
Ich habe verstanden, dass es mir offen steht, das Forschungsteam zu kontaktieren, Fragen zu stellen und die Studie zu diskutieren.	
Ich habe verstanden, dass ich die Teilnahme verweigern, oder zu jedem Zeitpunkt ohne Konsequenzen wieder aussteigen kann und dass meine Informationen auf mein Verlangen zurückgezogen werden.	
Ich habe verstanden, dass das Forschungsteam meine Daten vertraulich behandeln wird. Ich habe verstanden, dass nur Tobias Aubele und sein Doktorvater/-mutter Zugang zu den Rohdaten bekommt.	

**Bitte bestätigen Sie die obigen Fragen durch das Abhacken (✓) jeder Frage.**



## - Final Questionnaire -

**Hinweise**

Viele Fragen dieser Studie nutzen 7-stufige Beurteilungsskalen. Bitte markieren Sie die Nummer, die am besten Ihre Meinung beschreibt. Zum Beispiel: wenn Sie gefragt werden, wie Sie das Wetter in Ihrer Heimatstadt (bspw. Berlin) auf solch einer Skala beurteilen, sollen die 7 Stufen folgendermaßen interpretiert werden:

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht  
 äußerst    ziemlich    gering    weder noch    gering    ziemlich    äußerst

Wenn Sie denken, dass das Wetter in Berlin äußerst gut ist, dann würden Sie die Nummer 1 folgendermaßen umranden oder ankreuzen:

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Wenn Sie denken, dass das Wetter in Berlin ziemlich schlecht ist, dann würden Sie die Nummer 6 folgendermaßen umranden oder ankreuzen.

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Wenn Sie denken, dass das Wetter in Berlin geringfügig gut ist, würden Sie die Nummer 3 umranden oder ankreuzen.

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Wenn Sie denken, dass das Wetter in Berlin weder gut noch schlecht ist, dann würden Sie die Nummer 4 umranden oder ankreuzen.

Das Wetter in Berlin ist:

gut:   1   :   2   :   3   :   4   :   5   :   6   :   7   : schlecht

Während Sie Ihre Beurteilung vornehmen, bedenken Sie bitte folgende Punkte:

- \* **Bitte beantworten Sie alle Fragen – lassen Sie keine aus.**
- \* **Bitte nie mehr als eine Zahl bei einer Frage umranden oder ankreuzen.**
- \* **Obwohl manche Aussagen ähnlich klingen, sind feine Unterschiede in der Frage vorhanden.**

**Wichtiger Hinweis:**

**Die folgenden Aussagen beziehen sich auf die Bezahlung von neuen Rechnungen (infolge neuer Bestellungen) bei Versandhändlern innerhalb der regulären Zahlungsfrist.**

Es betrifft somit die **Bezahlung von zukünftigen Bestellungen** und befasst sich nicht mit der Bezahlung von aktuell offenen Rechnungen von bereits getätigten Bestellungen.

**[Behavioural Belief Strength]**

1. Die Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde mir Ärger mit Versandhandelsfirmen ersparen / reduzieren.

wahrscheinlich: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unwahrscheinlich

2. Die Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde mir einen besseren Überblick über meine finanzielle Lage geben.

wahrscheinlich: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unwahrscheinlich

3. Die Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist würde den Rechnungsbetrag nicht durch Mahngebühren oder Gerichtskosten erhöhen.

wahrscheinlich: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unwahrscheinlich

**[Outcome Evaluations]**

4. Keinen / weniger Ärger mit Versandhandelsunternehmen zu haben ist

schlecht: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: gut

5. Einen besseren Überblick über meine finanzielle Lage zu haben ist

gut: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: schlecht

6. Weiterer Schuldenaufbau durch Mahngebühren und Gerichtskosten ist

gut: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: schlecht

**[Motivation to Comply]**

7. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, werde ich das tun, was mein **Ehepartner** oder **Partner** denkt, was ich tun sollte.

wahrscheinlich: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: unwahrscheinlich

8. Die Meinung von meinen **engsten Freunden** zu meinem Zahlungsverhalten bei Versandhändlern, ist mir wichtig.

sehr stark: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: gar nicht

**[Injunctive Belief Strength]**

9. Mein **Ehepartner** bzw. **Partner** denkt, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte.

widersprechen: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: zustimmen

10. Meine **engsten Freunde** sind der Meinung, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte.

wahrscheinlich: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: unwahrscheinlich

**[Identification with referent]**

11. Wenn die Bezahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist ansteht, wie sehr wollen Sie sich verhalten wie Ihre **Eltern**?

gar nicht: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: sehr stark

**[Descriptive Belief Strength]**

12. Meine **Eltern** bezahlen Rechnungen bei Versandhändlern innerhalb der regulären Zahlungsfrist.

wahrscheinlich: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: unwahrscheinlich

**[Control Belief Strength]**

13. Ein fair bezahlter Job versetzt mich in die Lage, die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen.

widersprechen: \_\_1\_\_:\_\_2\_\_:\_\_3\_\_:\_\_4\_\_:\_\_5\_\_:\_\_6\_\_:\_\_7\_\_: zustimmen

- Final Questionnaire -

14. Eine Schulung über den Umgang mit Geld, würde mir helfen, die Bestellung vorab zu planen und die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen.

zustimmen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: widersprechen

15. Einen detaillierten Zahlungsplan aufzustellen, würde mir helfen, die Bestellung vorab zu planen und die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen.

zustimmen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: widersprechen

16. Ein festes, planbares Einkommen versetzt mich in die Lage, die Zahlung der Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist vorzunehmen.

widersprechen: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: zustimmen

**[Power of Control Factors]**

17. Einen fair bezahlten Job zu haben, macht es

einfach: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: schwierig

die Zahlung einer Rechnung eines Versandhändlers innerhalb der regulären Zahlungsfrist vorzunehmen.

18. Eine Schulung über den Umgang mit finanziellen Mitteln besucht zu haben, macht es

schwierig: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: einfach

die Zahlung einer Rechnung eines Versandhändlers innerhalb der regulären Zahlungsfrist vorzunehmen.

19. Einen detaillierten Zahlungsplan aufgestellt zu haben, macht es

einfach: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: schwierig

die Zahlung einer Rechnung eines Versandhändlers innerhalb der regulären Zahlungsfrist vorzunehmen.

20. Ein festes, planbares Einkommen zu haben, macht es

einfach: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schwierig

die Zahlung einer Rechnung eines Versandhändlers innerhalb der regulären Zahlungsfrist vorzunehmen.

**[Direct Attitude Scale]**

21. Für mich ist die Bezahlung jeder Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist

ehrlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unehrlich

nutzlos: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : nützlich

dumm: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : schlau

wichtig: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwichtig

schlecht: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : gut

angenehm: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unangenehm

**[Direct Perceived Norm Scales]**

22. Die meisten Menschen, die mir wichtig sind, sind der Meinung, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen sollte.

wahrscheinlich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : unwahrscheinlich

23. Die Menschen in meinem Leben, deren Meinung ich schätze,

bezahlen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : bezahlen nicht

jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist.

24. Es wird von mir erwartet, dass ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen soll.

widersprechen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : zustimmen

**[Direct Perceived Control Scales]**

25. Jede neue Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen, ist für mich.

unmöglich: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : möglich

- Final Questionnaire -

26. Die Entscheidung, jede neue Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen, liegt völlig in meiner Hand.

wahr: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: falsch

27. Wenn ich möchte, könnte ich jede neue Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlen.

wahr: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: falsch

**[Behavioural Intention Scale]**

28. Ich habe vor, jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

definitiv: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: definitiv nicht

29. Ich habe mich entschieden, jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

definitiv nicht: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: definitiv

30. Ich plane, jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

definitiv: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: definitiv nicht

**[Moral obligation]**

31. Ich würde mich schuldig fühlen, wenn ich nicht jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahle.

wahr: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: falsch

32. Es verstößt gegen meine Prinzipien, wenn ich nicht jede Rechnung bei Versandhändler innerhalb der regulären Zahlungsfrist bezahle.

wahr: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: falsch

33. Es würde für mich moralisch falsch sein, nicht jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist zu bezahlen.

wahrscheinlich: \_\_1\_\_: \_\_2\_\_: \_\_3\_\_: \_\_4\_\_: \_\_5\_\_: \_\_6\_\_: \_\_7\_\_: unwahrscheinlich

**[Past Behaviour]**

34. In den letzten 12 Monaten, habe ich jede Rechnung bei Versandhändlern innerhalb der regulären Zahlungsfrist bezahlt.

nie: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : immer

**[Perception of debt]**

35. Ich denke, dass unbezahlte Rechnungen im Versandhandel normal sind.  
widersprechen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : zustimmen

36. Im Allgemeinen denke ich, dass Schulden zu haben in Deutschland zugenommen hat.

widersprechen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : zustimmen

37. Ich denke, dass es in unserer Gesellschaft normal ist, Rechnungen nicht zu bezahlen.

zustimmen: \_\_1\_\_ : \_\_2\_\_ : \_\_3\_\_ : \_\_4\_\_ : \_\_5\_\_ : \_\_6\_\_ : \_\_7\_\_ : widersprechen

**[Current mail-order customer]**

Ungefähre Anzahl Bestellungen bei Versandhändlern in den letzten 12 Monaten:

keine    1-5    6-10    11-20    mehr 20

Aktuell offene Zahlungsverpflichtungen gegenüber Versandhändlern:

Ja    Nein

- Final Questionnaire -

**[Statistical information]**

Erste drei Ziffern Ihrer Postleitzahl: \_\_ \_\_ \_\_ (z.Bsp. 970 für 97074 Würzburg)

Ihr Geschlecht:  Frau  Mann

Ihr Geburtsjahr: \_\_\_\_\_ (z.Bsp. 1969)

Ihre höchste Berufsausbildung:

Studium  Ausbildung  keine abgeschlossene Berufsausbildung

Ihre derzeitige Berufliche Tätigkeit:

Vollzeit  Teilzeit  Arbeitslos  Rente  Student/Schüler

Hauptgrund Ihrer Überschuldung:

Arbeitslosigkeit  Trennung / Scheidung  gescheiterte Selbstständigkeit  
 Krankheit/Sucht  unwirtschaftliche Haushaltsführung  Tod des Partners  
 gescheiterte Immobilienfinanzierung  sonstige Gründe

Ihre aktuelle Phase in der Beratung:

Schuldnerberatung  Insolvenzberatung  im laufenden Verfahren

**Kommentare / Anmerkungen zur Studie**

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**Herzlichen Dank für Ihre Teilnahme.**



## - Final Questionnaire -

## A-3.4 Descriptive Statistics of the final study (not-imprisoned)

	Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AT_D_1_1_N	95	3	7	6,46	,954	-1,730	,247	2,093	,490
AT_D_2_1_N	97	1	7	6,16	1,288	-1,687	,245	2,408	,485
AT_D_3_1_N	95	3	7	5,95	1,258	-,816	,247	-,729	,490
AT_D_4_1_N	96	1	7	6,39	1,226	-2,566	,246	6,664	,488
AT_D_5_1_N	95	1	7	6,38	1,196	-2,263	,247	5,060	,490
AT_D_6_1_N	95	1	7	5,33	1,777	-,974	,247	,154	,490
SN_D_1_2_N	96	1	7	6,09	1,330	-2,010	,246	4,208	,488
SN_D_2_10_N	97	1	7	5,87	1,272	-1,388	,245	2,027	,485
SN_D_3_16_N	96	1	7	6,28	1,312	-2,168	,246	4,334	,488
PBC_D_1_3_N	97	1	7	5,45	1,937	-1,053	,245	-,116	,485
PBC_D_2_11_N	97	1	7	5,55	2,016	-1,250	,245	,203	,485
PBC_D_3_31_N	97	1	7	5,31	2,176	-,946	,245	-,603	,485
I_D_1_4_N	97	1	7	6,44	1,224	-3,064	,245	9,883	,485
I_D_2_23_N	97	2	7	6,30	1,226	-1,979	,245	3,287	,485
I_D_3_36_N	97	2	7	6,49	,903	-2,282	,245	6,414	,485
MO_1_5_N	95	1	7	6,03	1,410	-1,848	,247	3,218	,490
MO_2_19_N	97	1	7	5,79	1,620	-1,460	,245	1,541	,485
MO_3_35_N	97	2	7	6,00	1,267	-1,162	,245	,618	,485
PB_1_24_N	97	1	7	5,58	1,701	-,894	,245	-,436	,485
PD_1_7_N	97	1	7	4,18	2,067	-,037	,245	-1,317	,485
PD_2_12_N	97	1	7	1,94	1,464	2,002	,245	3,979	,485
PD_3_37_N	97	1	7	4,16	2,075	-,004	,245	-1,272	,485
AT_BO_1_8_N	97	1	7	6,61	1,229	-4,050	,245	16,157	,485
AT_BO_2_20_N	95	1	7	5,48	1,890	-1,308	,247	,669	,490
AT_BO_3_27_N	97	4	7	6,79	,558	-2,982	,245	9,047	,485
AT_BS_1_13_N	97	4	7	6,77	,604	-3,045	,245	9,555	,485
AT_BS_2_17_N	96	4	7	6,85	,458	-3,904	,246	17,991	,488
AT_BS_3_32_N	97	4	7	6,93	,389	-6,132	,245	40,086	,485
SN_BO_1_6_N	96	1	7	4,08	2,360	-,131	,246	-1,568	,488
SN_BO_2_14_N	96	1	7	3,90	1,997	-,185	,246	-1,272	,488
SN_BO_3_33_N	95	1	7	5,52	1,895	-1,246	,247	,444	,490
SN_BS_1_21_N	95	1	7	5,55	1,901	-1,205	,247	,239	,490
SN_BS_2_26_N	96	1	7	5,92	1,237	-1,202	,246	1,490	,488
SN_BS_3_29_N	92	1	7	6,04	1,728	-2,040	,251	3,197	,498
PBC_BO_1_9_N	97	1	7	5,88	1,685	-1,362	,245	,710	,485
PBC_BO_2_15_N	96	1	7	4,00	2,103	-,083	,246	-1,232	,488
PBC_BO_3_22_N	97	1	7	5,31	1,770	-,909	,245	-,069	,485
PBC_BO_4_28_N	97	1	7	6,24	1,329	-2,215	,245	4,559	,485
PBC_BS_1_25_N	97	3	7	6,20	1,047	-1,126	,245	,222	,485
PBC_BS_2_18_N	97	1	7	5,32	1,454	-,515	,245	-,237	,485
PBC_BS_3_30_N	96	3	7	6,04	1,104	-,994	,246	,007	,488
PBC_BS_4_34_N	97	4	7	6,38	,883	-1,298	,245	,728	,485
AT_B_1	97	4	49	44,90	9,282	-3,175	,245	10,574	,485
AT_B_2	95	4	49	37,68	13,193	-1,244	,247	,609	,490
AT_B_3	97	24	49	47,12	5,028	-2,953	,245	8,410	,485
SN_B_1	95	1	49	23,32	16,919	,371	,247	-1,395	,490
SN_B_2	95	2	49	23,97	14,101	,113	,247	-1,179	,490
SN_B_3	92	1	49	35,25	15,456	-,908	,251	-,434	,498
PBC_B_1	97	4	49	37,29	13,889	-,804	,245	-,832	,485
PBC_B_2	96	4	49	21,73	14,093	,448	,246	-,929	,488
PBC_B_3	96	4	49	32,83	13,761	-,382	,246	-1,013	,488
PBC_B_4	97	7	49	40,33	11,383	-1,266	,245	,785	,485
Valid N (listwise)	78								

Table 77: Statistics of-questions in the final questionnaire (not-imprisoned)

## - Final Questionnaire -

## A-3.5 Descriptive Statistics of the final study (not-imprisoned male)

## Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AT_D_1_1_N	51	4	7	6,53	,833	-1,717	,333	2,036	,656
AT_D_2_1_N	52	3	7	6,27	1,157	-1,583	,330	1,441	,650
AT_D_3_1_N	51	3	7	5,98	1,273	-,932	,333	-,493	,656
AT_D_4_1_N	51	1	7	6,35	1,230	-2,532	,333	7,178	,656
AT_D_5_1_N	51	3	7	6,53	,966	-2,231	,333	4,340	,656
AT_D_6_1_N	51	1	7	5,31	1,476	-,609	,333	-,059	,656
SN_D_1_2_N	52	3	7	6,21	,957	-1,284	,330	1,529	,650
SN_D_2_10_N	52	3	7	6,17	,964	-1,180	,330	1,208	,650
SN_D_3_16_N	51	2	7	6,31	1,257	-2,264	,333	4,799	,656
PBC_D_1_3_N	52	1	7	5,35	2,009	-,936	,330	-,434	,650
PBC_D_2_11_N	52	1	7	5,79	1,829	-1,633	,330	1,684	,650
PBC_D_3_31_N	52	1	7	5,54	2,005	-1,168	,330	,062	,650
I_D_1_4_N	52	1	7	6,35	1,327	-2,824	,330	7,996	,650
I_D_2_23_N	52	2	7	6,12	1,437	-1,653	,330	1,681	,650
I_D_3_36_N	52	4	7	6,44	,826	-1,435	,330	1,374	,650
MO_1_5_N	51	1	7	6,08	1,398	-1,883	,333	3,498	,656
MO_2_19_N	52	1	7	5,63	1,738	-1,319	,330	1,041	,650
MO_3_35_N	52	2	7	6,00	1,252	-1,121	,330	,544	,650
PB_1_24_N	52	1	7	5,75	1,702	-1,304	,330	,684	,650
PD_1_7_N	52	1	7	4,40	1,912	-,153	,330	-1,246	,650
PD_2_12_N	52	1	7	1,98	1,421	1,997	,330	4,369	,650
PD_3_37_N	52	1	7	4,00	1,990	,047	,330	-1,163	,650
AT_BO_1_8_N	52	1	7	6,75	,883	-5,701	,330	36,592	,650
AT_BO_2_20_N	52	1	7	5,25	2,085	-1,170	,330	-,019	,650
AT_BO_3_27_N	52	5	7	6,75	,590	-2,272	,330	3,965	,650
AT_BS_1_13_N	52	4	7	6,73	,630	-2,665	,330	7,436	,650
AT_BS_2_17_N	52	4	7	6,79	,572	-3,265	,330	11,900	,650
AT_BS_3_32_N	52	4	7	6,90	,454	-5,642	,330	34,374	,650
SN_BO_1_6_N	52	1	7	4,44	2,146	-,394	,330	-1,232	,650
SN_BO_2_14_N	52	1	7	4,17	1,917	-,291	,330	-1,054	,650
SN_BO_3_33_N	50	1	7	5,26	1,882	-,928	,337	-,104	,662
SN_BS_1_21_N	52	1	7	5,52	1,777	-1,058	,330	,134	,650
SN_BS_2_26_N	52	3	7	6,06	1,092	-,963	,330	,009	,650
SN_BS_3_29_N	50	1	7	6,10	1,717	-2,252	,337	4,199	,662
PBC_BO_1_9_N	52	1	7	5,69	1,710	-1,064	,330	-,057	,650
PBC_BO_2_15_N	52	1	7	3,87	1,990	-,024	,330	-,982	,650
PBC_BO_3_22_N	52	1	7	5,19	1,837	-,986	,330	,059	,650
PBC_BO_4_28_N	52	1	7	6,13	1,415	-2,192	,330	4,635	,650
PBC_BS_1_25_N	52	3	7	6,04	1,171	-,839	,330	-,562	,650
PBC_BS_2_18_N	52	2	7	5,27	1,416	-,457	,330	-,431	,650
PBC_BS_3_30_N	52	3	7	5,92	1,169	-,841	,330	-,501	,650
PBC_BS_4_34_N	52	4	7	6,25	,988	-1,040	,330	-,142	,650
AT_B_1	52	4	49	45,77	7,374	-3,932	,330	19,968	,650
AT_B_2	52	4	49	35,83	14,509	-1,109	,330	-,068	,650
AT_B_3	52	24	49	46,67	5,491	-2,593	,330	6,544	,650
SN_B_1	52	4	49	24,62	15,954	,335	,330	-1,370	,650
SN_B_2	52	4	49	26,08	13,956	,015	,330	-1,129	,650
SN_B_3	50	1	49	33,58	14,941	-,787	,337	-,337	,662
PBC_B_1	52	6	49	35,13	14,203	-,450	,330	-1,362	,650
PBC_B_2	52	4	49	20,42	12,434	,505	,330	-,496	,650
PBC_B_3	52	4	49	31,23	13,490	-,401	,330	-,865	,650
PBC_B_4	52	7	49	38,90	12,022	-1,128	,330	,502	,650
Valid N (listwise)	46								

Table 78: Statistics of the final questionnaire (not-imprisoned male)

## - Final Questionnaire -

## A-3.6 Descriptive Statistics of the final study (not-imprisoned female)

	Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AT_D_1_1_N	44	3	7	6,39	1,083	-1,649	,357	1,673	,702
AT_D_2_1_N	45	1	7	6,04	1,429	-1,694	,354	2,585	,695
AT_D_3_1_N	44	3	7	5,91	1,254	-,710	,357	-,933	,702
AT_D_4_1_N	45	2	7	6,42	1,234	-2,700	,354	7,060	,695
AT_D_5_1_N	44	1	7	6,20	1,407	-2,060	,357	3,940	,702
AT_D_6_1_N	44	1	7	5,34	2,090	-1,101	,357	-,111	,702
SN_D_1_2_N	44	1	7	5,95	1,670	-1,840	,357	2,537	,702
SN_D_2_10_N	45	1	7	5,51	1,487	-1,130	,354	,926	,695
SN_D_3_16_N	45	1	7	6,24	1,384	-2,130	,354	4,367	,695
PBC_D_1_3_N	45	1	7	5,58	1,865	-1,239	,354	,511	,695
PBC_D_2_11_N	45	1	7	5,27	2,199	-,933	,354	-,670	,695
PBC_D_3_31_N	45	1	7	5,04	2,354	-,734	,354	-1,100	,695
I_D_1_4_N	45	1	7	6,56	1,099	-3,537	,354	14,925	,695
I_D_2_23_N	45	3	7	6,51	,895	-2,224	,354	5,301	,695
I_D_3_36_N	45	2	7	6,56	,990	-2,957	,354	10,156	,695
MO_1_5_N	44	1	7	5,98	1,438	-1,874	,357	3,423	,702
MO_2_19_N	45	1	7	5,98	1,469	-1,670	,354	2,570	,695
MO_3_35_N	45	2	7	6,00	1,297	-1,243	,354	,892	,695
PB_1_24_N	45	2	7	5,38	1,696	-,482	,354	-1,273	,695
PD_1_7_N	45	1	7	3,91	2,224	,143	,354	-1,386	,695
PD_2_12_N	45	1	7	1,89	1,526	2,083	,354	4,193	,695
PD_3_37_N	45	1	7	4,36	2,176	-,093	,354	-1,384	,695
AT_BO_1_8_N	45	1	7	6,44	1,531	-3,192	,354	9,325	,695
AT_BO_2_20_N	43	1	7	5,77	1,601	-1,389	,361	1,665	,709
AT_BO_3_27_N	45	4	7	6,84	,520	-4,268	,354	20,785	,695
AT_BS_1_13_N	45	4	7	6,82	,576	-3,738	,354	14,791	,695
AT_BS_2_17_N	44	6	7	6,93	,255	-3,548	,357	11,094	,702
AT_BS_3_32_N	45	5	7	6,96	,298	-6,708	,354	45,000	,695
SN_BO_1_6_N	44	1	7	3,66	2,551	,198	,357	-1,723	,702
SN_BO_2_14_N	44	1	7	3,57	2,062	-,035	,357	-1,482	,702
SN_BO_3_33_N	45	1	7	5,80	1,890	-1,727	,354	1,815	,695
SN_BS_1_21_N	43	1	7	5,58	2,061	-1,353	,361	,379	,709
SN_BS_2_26_N	44	1	7	5,75	1,383	-1,240	,357	1,715	,702
SN_BS_3_29_N	42	1	7	5,98	1,760	-1,879	,365	2,680	,717
PBC_BO_1_9_N	45	1	7	6,09	1,649	-1,835	,354	2,397	,695
PBC_BO_2_15_N	44	1	7	4,16	2,241	-,182	,357	-1,441	,702
PBC_BO_3_22_N	45	1	7	5,44	1,700	-,801	,354	-,327	,695
PBC_BO_4_28_N	45	2	7	6,36	1,228	-2,272	,354	4,587	,695
PBC_BS_1_25_N	45	4	7	6,38	,860	-1,506	,354	1,876	,695
PBC_BS_2_18_N	45	1	7	5,38	1,512	-,602	,354	,055	,695
PBC_BS_3_30_N	44	3	7	6,18	1,018	-1,215	,357	1,048	,702
PBC_BS_4_34_N	45	4	7	6,53	,726	-1,612	,354	2,417	,695
AT_B_1	45	7	49	43,89	11,091	-2,655	,354	6,523	,695
AT_B_2	43	7	49	39,93	11,158	-1,298	,361	1,508	,709
AT_B_3	45	28	49	47,64	4,437	-3,679	,354	13,518	,695
SN_B_1	43	1	49	21,74	18,083	,476	,361	-1,428	,709
SN_B_2	43	2	49	21,42	14,012	,252	,361	-1,208	,709
SN_B_3	42	3	49	37,24	16,000	-1,143	,365	-,218	,717
PBC_B_1	45	4	49	39,78	13,239	-1,337	,354	,527	,695
PBC_B_2	44	4	49	23,27	15,841	,306	,357	-1,345	,702
PBC_B_3	44	7	49	34,73	13,991	-,423	,357	-1,193	,702
PBC_B_4	45	12	49	41,98	10,489	-1,481	,354	1,393	,695
Valid N (listwise)	32								

Table 79: Statistics of the final questionnaire (not-imprisoned female)

## - Final Questionnaire -

## A-3.7 Descriptive Statistics of the final study (imprisoned)

	Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AT_D_1_1_N	41	2	7	5,98	1,275	-1,323	,369	1,325	,724
AT_D_2_1_N	40	1	7	5,95	1,431	-1,510	,374	2,298	,733
AT_D_3_1_N	39	1	7	5,74	1,601	-1,462	,378	2,014	,741
AT_D_4_1_N	41	1	7	5,90	1,480	-1,624	,369	2,531	,724
AT_D_5_1_N	40	2	7	5,75	1,515	-1,275	,374	,855	,733
AT_D_6_1_N	40	2	7	5,62	1,480	-,857	,374	-,125	,733
SN_D_1_2_N	41	3	7	5,95	1,224	-1,022	,369	-,010	,724
SN_D_2_10_N	40	2	7	6,00	1,132	-1,562	,374	2,905	,733
SN_D_3_16_N	41	2	7	6,29	1,078	-2,011	,369	5,149	,724
PBC_D_1_3_N	41	1	7	4,29	1,901	-,398	,369	-,988	,724
PBC_D_2_11_N	41	3	7	6,02	1,214	-1,018	,369	,042	,724
PBC_D_3_31_N	41	1	7	4,27	2,356	-,254	,369	-1,530	,724
I_D_1_4_N	41	2	7	6,10	1,428	-1,911	,369	3,070	,724
I_D_2_23_N	41	1	7	5,20	1,887	-,695	,369	-,824	,724
I_D_3_36_N	41	3	7	6,00	1,162	-,905	,369	-,274	,724
MO_1_5_N	41	1	7	4,90	1,908	-,489	,369	-,943	,724
MO_2_19_N	41	1	7	4,80	2,193	-,635	,369	-1,011	,724
MO_3_35_N	40	1	7	4,95	1,947	-,650	,374	-,895	,733
PB_1_24_N	41	1	7	4,05	2,334	-,037	,369	-1,569	,724
PD_1_7_N	41	1	7	3,32	1,993	,334	,369	-,965	,724
PD_2_12_N	41	1	7	1,68	1,507	2,876	,369	7,764	,724
PD_3_37_N	40	1	7	3,60	1,878	,251	,374	-,820	,733
AT_BO_1_8_N	41	2	7	6,46	1,002	-2,634	,369	8,914	,724
AT_BO_2_20_N	41	1	7	5,51	1,690	-,970	,369	-,137	,724
AT_BO_3_27_N	41	4	7	6,66	,762	-2,530	,369	6,161	,724
AT_BS_1_13_N	41	4	7	6,41	,974	-1,625	,369	1,517	,724
AT_BS_2_17_N	41	5	7	6,63	,623	-1,520	,369	1,275	,724
AT_BS_3_32_N	41	5	7	6,83	,543	-3,074	,369	8,133	,724
SN_BO_1_6_N	40	1	7	4,08	2,291	-,137	,374	-1,540	,733
SN_BO_2_14_N	41	1	7	4,54	1,976	-,456	,369	-,858	,724
SN_BO_3_33_N	40	1	7	5,43	1,615	-1,049	,374	,918	,733
SN_BS_1_21_N	41	2	7	5,71	1,616	-,991	,369	-,329	,724
SN_BS_2_26_N	40	3	7	5,80	1,203	-1,084	,374	,366	,733
SN_BS_3_29_N	40	1	7	5,93	1,979	-1,812	,374	1,931	,733
PBC_BO_1_9_N	41	1	7	5,93	1,694	-1,891	,369	2,804	,724
PBC_BO_2_15_N	41	1	7	4,85	1,918	-,810	,369	-,246	,724
PBC_BO_3_22_N	41	2	7	5,68	1,350	-,731	,369	-,247	,724
PBC_BO_4_28_N	41	1	7	5,93	1,709	-1,872	,369	2,641	,724
PBC_BS_1_25_N	41	1	7	6,20	1,188	-2,467	,369	8,315	,724
PBC_BS_2_18_N	41	1	7	5,10	1,530	-,480	,369	-,151	,724
PBC_BS_3_30_N	40	2	7	5,98	1,310	-1,175	,374	,618	,733
PBC_BS_4_34_N	41	1	7	6,15	1,216	-2,312	,369	7,145	,724
AT_B_1	41	12	49	41,93	10,405	-1,371	,369	,829	,724
AT_B_2	41	7	49	36,80	12,380	-,688	,369	-,586	,724
AT_B_3	41	20	49	45,71	7,274	-2,269	,369	4,254	,724
SN_B_1	40	2	49	23,90	16,565	,392	,374	-1,359	,733
SN_B_2	40	5	49	27,13	14,476	,022	,374	-1,028	,733
SN_B_3	40	1	49	33,48	15,103	-,774	,374	-,415	,733
PBC_B_1	41	6	49	36,98	13,845	-,999	,369	-,116	,724
PBC_B_2	41	3	49	25,85	15,028	,214	,369	-1,124	,724
PBC_B_3	40	8	49	34,58	12,997	-,350	,374	-1,280	,733
PBC_B_4	41	6	49	37,15	14,423	-1,064	,369	-,140	,724
Valid N (listwise)	34								

Table 80: Statistics of questions in the final questionnaire (imprisoned)

A-3.8 TPB-Model extensions for imprisoned sample

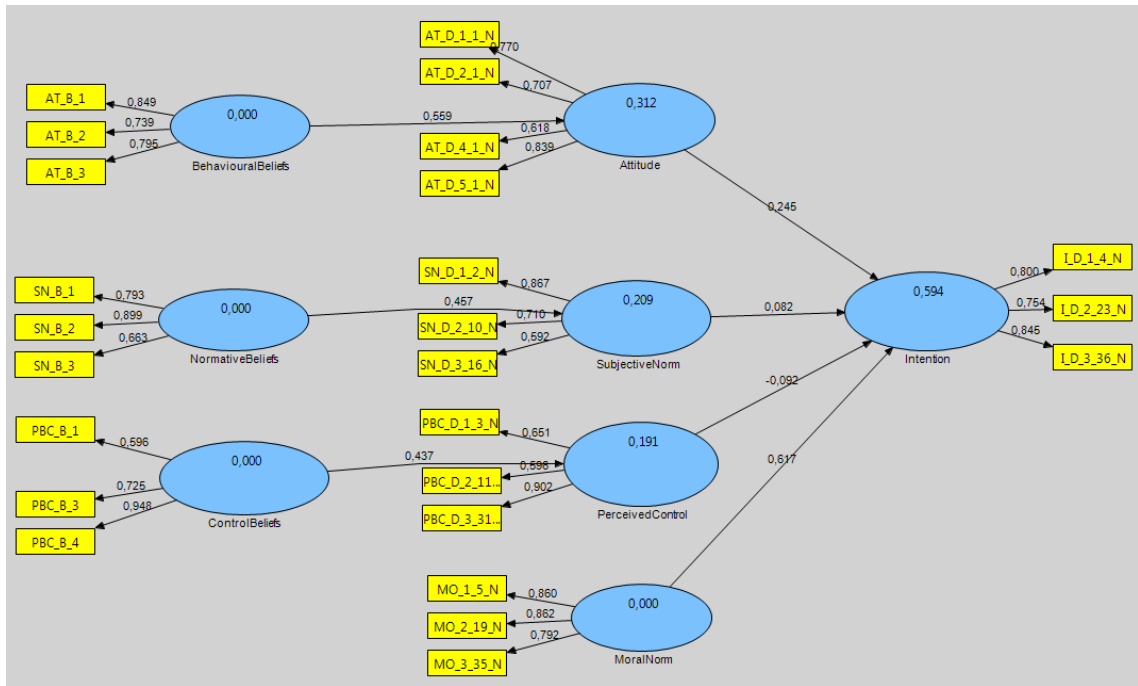


Figure 61: Extended version of TPB (imprisoned)

n	Imprisoned		not-Imprisoned	
	incl. Moral	incl. Moral	incl. Moral	incl. Moral
41	41	97	97	
<b>R<sup>2</sup></b>	<b>0.3854</b>	<b>0.5936</b>	<b>0.3580</b>	<b>0.4705</b>
<b>path relationships</b>				
BehaviouralBeliefs -> Attitude	0.5579***	0.5590***	0.3503***	0.3502***
Attitude -> Intention	0.4097**	0.2447 <sup>ns</sup>	0.1692*	0.0443 <sup>ns</sup>
NormativeBeliefs -> SubjectiveNorm	0.4573***	0.4570***	0.4479***	0.4481***
SubjectiveNorm -> Intention	0.2930*	0.0817 <sup>ns</sup>	0.3500***	0.2614***
ControlBeliefs -> PerceivedControl	0.4378***	0.4369***	0.2911***	0.2892***
PerceivedControl -> Intention	0.0779 <sup>ns</sup>	-0.0919 <sup>ns</sup>	0.3050***	0.1985**
Moral -> Intention		0.6173***		0.4175***

Table 81: Statistical outcome of the addition of moral norms (imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

- Final Questionnaire -

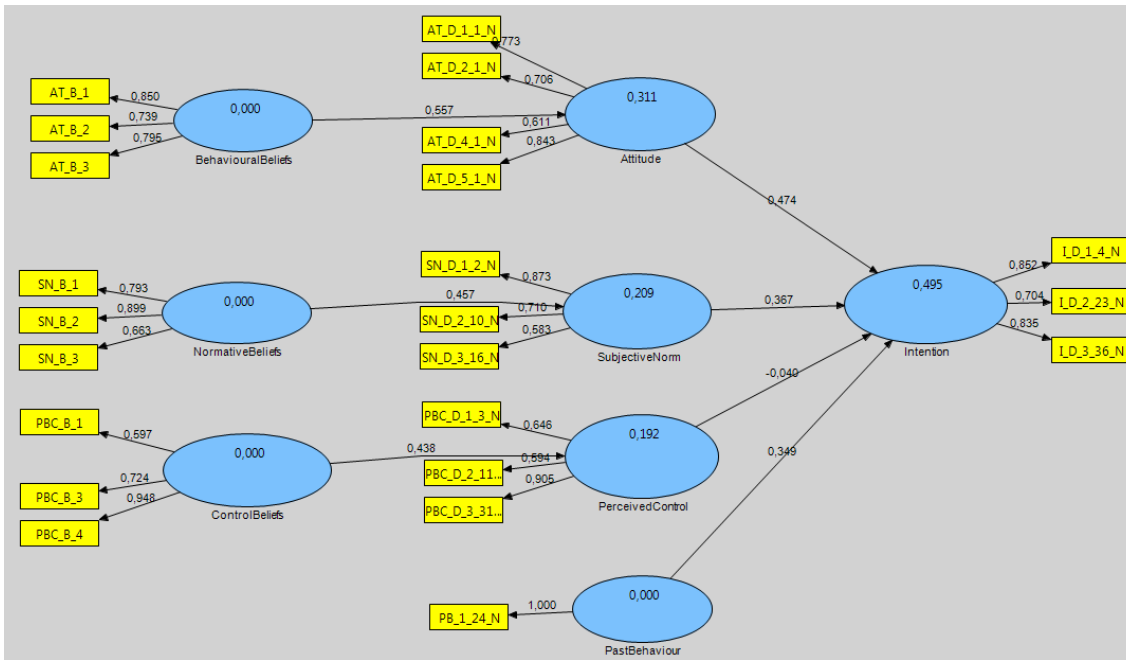


Figure 62: Addition of past behaviour to the TPB (imprisoned)

n	Imprisoned inkl. Past B.		not- Imprisoned inkl. Past B.	
	41	41	97	97
<b>R<sup>2</sup></b>	<b>0.3854</b>	<b>0.4946</b>	<b>0.3580</b>	<b>0.3953</b>
<b>path relationships</b>				
BehaviouralBeliefs -> Attitude	0.5579***	0.5573***	0.3503***	0.3501***
Attitude -> Intention	0.4097**	0.4736***	0.1692*	0.1537*
NormativeBeliefs -> SubjectiveNorm	0.4573***	0.4575***	0.4479***	0.4479***
SubjectiveNorm -> Intention	0.2930*	0.3672**	0.3500***	0.3481***
ControlBeliefs -> PerceivedControl	0.4378***	0.4384***	0.2911***	0.2904***
PerceivedControl -> Intention	0.0779 <sup>ns</sup>	-0.0405 <sup>ns</sup>	0.3050***	0.1789*
PastBehaviour -> Intention		0.3491***		0.2477**

Table 82: Statistics addition of past behaviour to the TPB (imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

- Final Questionnaire -

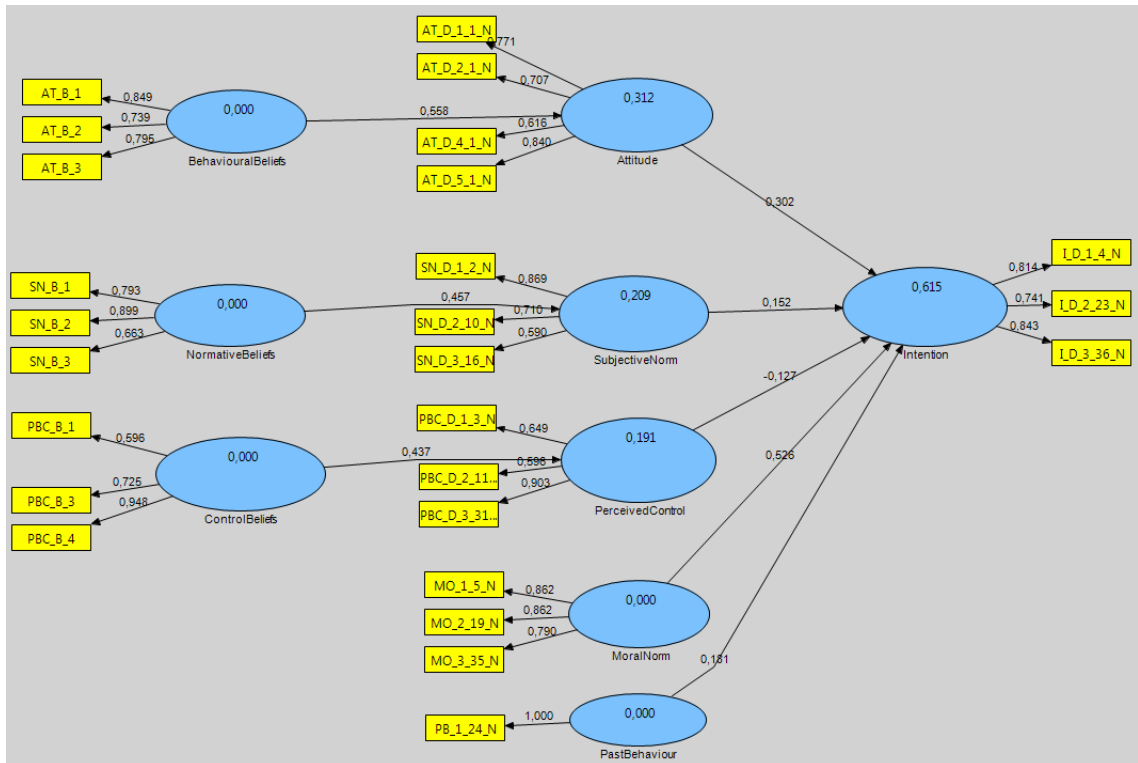


Figure 63: Addition of moral norms and past behaviour to the TPB (imprisoned)

	Imprisoned				not-Imprisoned			
	n	incl. Moral	incl. Past B.	incl. both	n	incl. Moral	incl. Past B.	incl. both
R <sup>2</sup>	41	41	41	41	97	97	97	97
	0.3854	0.5936	0.4946	0.6153	0.3580	0.4705	0.3953	0.4901
<b>path relationships</b>								
BehaviouralBeliefs -> Attitude	0.5579***	0.5590***	0.5573***	0.5585***	0.3503***	0.3502***	0.3501***	0.3502***
Attitude -> Intention	0.4097**	0.2447 <sup>ns</sup>	0.4736***	0.3022 <sup>ns</sup>	0.1692*	0.0443 <sup>ns</sup>	0.1537*	0.0429 <sup>ns</sup>
NormativeBeliefs -> SubjectiveNorm	0.4573***	0.4570***	0.4575***	0.4571***	0.4479***	0.4481***	0.4479***	0.4481***
SubjectiveNorm -> Intention	0.2930*	0.0817 <sup>ns</sup>	0.3672**	0.1516 <sup>ns</sup>	0.3500***	0.2614***	0.3481***	0.2688***
ControlBeliefs -> PerceivedControl	0.4378***	0.4369***	0.4384***	0.4373***	0.2911***	0.2892***	0.2904***	0.2890***
PerceivedControl -> Intention	0.0779 <sup>ns</sup>	-0.0919 <sup>ns</sup>	-0.0405 <sup>ns</sup>	-0.1271 <sup>ns</sup>	0.3050***	0.1985**	0.1789*	0.1154 <sup>ns</sup>
Moral -> Intention		0.6173***		0.5257***		0.4175***		0.3857***
PastBehaviour -> Intention			0.3491***	0.1814*			0.2477**	0.1777*

Table 83: Statistical output of extensions to the TPB (imprisoned)

Significance: \*\*\* <0.01, \*\* <0.05, \* <0.1; ns = not significant

## A-4 ANALYSIS WITH PLS-SEM

### A-4.1 Criteria for model assessment

<b>Criterion</b>	<b>Recommendations</b>	<b>references</b>
<i>Data characteristics</i> General description of the sample	Use “ten times rule” as rough guidance for minimum sample size	(Barclay, Higgins, & Thompson, 1995)
Distribution of the sample	Robust when applied to highly skewed data; report skewness and kurtosis	(Cassel, Hackl, & Westlund, 1999), (Reinartz, Haenlein, & Henseler, 2009)
<i>PLS-SEM algorithm settings and software used</i>		
Starting values for weights for initial approximation of the latent variable scores	Use an uniform value of 1 as an initial value for each of the outer weights	(Henseler, 2010)
Weighting scheme	Use path weighting scheme	(Henseler, 2010); (Henseler, Ringle, & Sinkovics, 2009)
Stop criterion	Sum of the outer weights' changes between two iterations <10 <sup>-5</sup>	(Wold, 1982)
Maximum number of iterations	300	(Ringle, Wende, & Will, 2005)
Software used	Report software, including version to indicate default settings –	
<i>Parameter settings for procedures used to evaluate results</i>		
Bootstrapping Number of bootstrap samples	5,000; must be greater than the number of valid observations	(Efron, 1981) (Hair, Ringle, & Sarstedt, 2011)
Number of bootstrap cases	Equal to the number of valid observations	(Hair, Ringle, & Sarstedt, 2011)
Blindfolding	Use cross-validated redundancy	(Chin, 1998); (Geisser, 1974); (Stone, 1974)
Omission distance d	Number of valid observations divided by d must not be an integer; choose $5 \leq d \leq 10$	(Chin, 1998)



## - Analysis with PLS-SEM -

<b>Criterion</b>	<b>Recommendations</b>	<b>references</b>
Stop criterion	$\ln(L)$ change $< 10^{-15}$	(Ringle, Sarstedt, & Mooi, 2010)
<i>Outer model evaluation: reflective</i>		
Indicator reliability	Standardized indicator loadings $\geq 0.70$ ; in exploratory studies, loadings of 0.40 are acceptable	(Hulland, 1999)
Internal consistency reliability	Do not use Cronbach's alpha; composite reliability $\geq 0.70$ (in exploratory research 0.60 is considered acceptable)	(Bagozzi & Yi, 1988)
Convergent validity	AVE $\geq 0.50$	(Bagozzi & Yi, 1988)
Discriminant validity Fornell-Larcker criterion	Each construct's AVE should be higher than its squared correlation with any other construct	(Fornell & Larcker, 1981)
Cross loadings	Each indicator should load highest on the construct it is intended to measure	(Chin, 1998); (Gregoire & Fisher, 2006)
<i>Inner model evaluation</i>		
R <sup>2</sup>	Acceptable level depends on research context	(Hair, Black, Babin, & Anderson, 2010)
Effect size f <sup>2</sup>	0.02, 0.15, 0.35 for weak, moderate, strong effects	(Cohen J. , 1988)
Path coefficient estimates	Use bootstrapping to assess significance	(Chin, 1998); (Henseler, Ringle, & Sinkovics, 2009)
Predictive relevance Q <sup>2</sup> and q <sup>2</sup>	Use blindfolding; Q <sup>2</sup> > 0 is indicative of predictive relevance; q <sup>2</sup> : 0.02, 0.15, 0.35 for weak, moderate, strong degree of predictive relevance	(Chin, 1998); (Henseler, Ringle, & Sinkovics, 2009)
Observed and unobserved heterogeneity	Consider categorical or continuous moderating variables using a priori information or FIMIX-PLS	(Henseler & Chin, 2010); (Rigdon, Ringle, & Sarstedt, 2010); (Sarstedt, Henseler, & Ringle, 2011), (Sarstedt,

<b>Criterion</b>	<b>Recommendations</b>	<b>references</b>
		Becker, Ringle, & Schwaiger, 2011)

Table 84: Guidelines for applying PLS-SEM

Source: adopted from (Hair, Sarstedt, Ringle, & Mena, 2012, p. 429f)

#### A-4.2 Stages and Steps in calculating the basic PLS-SEM algorithm

The basic PLS-SEM algorithm (Lohmöller, 1989) conducts a two-stage approach (path model example see Figure 64). First, the latent constructs' scores are estimated via a four-step process (see Table 85). In a second phase the final estimates of the outer weights and loadings are calculated as well as the structural model's path coefficients (Hair, Ringle, & Sarstedt, 2011). "The path modelling procedure is called partial because the iterative PLS-SEM algorithm estimates the coefficients for the partial ordinary least squares regression models in the measurement models and the structural model" (Hair, Ringle, & Sarstedt, 2011, p. 141).

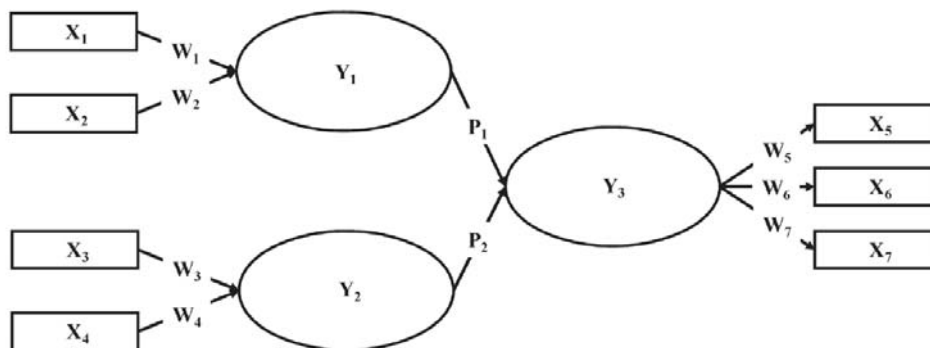


Figure 64: Path Model Example

Source: (Hair, Ringle, & Sarstedt, 2011, p. 142)

<b>Stage One: Iterative estimation of latent construct scores</b>	
Step 1	Outer approximation of latent construct scores (the scores of Y1, Y2, and Y3 are computed based on the manifest variables' scores and the outer coefficients from Step 4)
Step 2	Estimation of proxies for structural model relationships between latent constructs (P1 and P2)
Step 3	Inner approximation of latent construct scores (based on scores for Y1, Y2, and Y3 from Step 1 and proxies for structural model relationships, P1 and P2, from Step 2)
Step 4	Estimation of proxies for coefficients in the measurement models (the relationships between indicator variables and latent constructs with scores from Step 3; W1 to W7)
<b>Stage Two: Final estimates of coefficients</b>	
The outer weights and loadings, structural model relationships are determined using the ordinary least squares method for each partial regression in the PLS-SEM model .	

Table 85: Stages and Steps in Calculating the Basic PLS-SEM Algorithm

Source: Hair, Ringle, &amp; Sarstedt (2011, p. 142)

## A-5 ANALYSIS WITH AMOS

As previously mentioned, data analysis could be done by using SPSS 20.0 and AMOS (Analysis of Moment Structures) 20.0, an add-on for the statistical software SPSS. This program is specially designed for structural equation modelling. It was considered to use both the theory of planned behaviour and structural equation modelling with AMOS. Therefore the questions were defined and structured according to the theory's necessary format and dependency.

Based on the small sample sizes (138 in sum, 41 imprisoned and 97 not-imprisoned respondents), analyses leads to very poor goodness-of-fit (for details see next section). Figure 65 demonstrates the unmodified, CB-PLS model which was originally intended to use. For demonstrating the poor index, the comprehensive model (138 respondents) has an unacceptable CFI (Comparative Fit Index) of 0.752 and a TLI (Tucker-Lewis Index) of 0.720. An absolute Goodness-of-fit is explained by the small  $\chi^2$  value, because

“The implied null hypothesis of SEM is that the observed sample and SEM estimated covariance matrices are equal, meaning that the model fits perfectly. [...] So in SEM we look for a relatively small  $\chi^2$  value (and corresponding large p-value), indicating no statistically significant difference between the two matrices, to support the idea that a proposed theory fits reality” (Hair, Black, Babin, & Anderson, 2010, p. 666).

The model had a  $\chi^2$  value of 500.660 and a p-value of 0.000, which demonstrates that the two matrices did not fit.

Again, the variables are non-normal distributed, which is necessary for applying CB-SEM. Therefore, no further analyses were made past this point.

## - Analysis with AMOS -

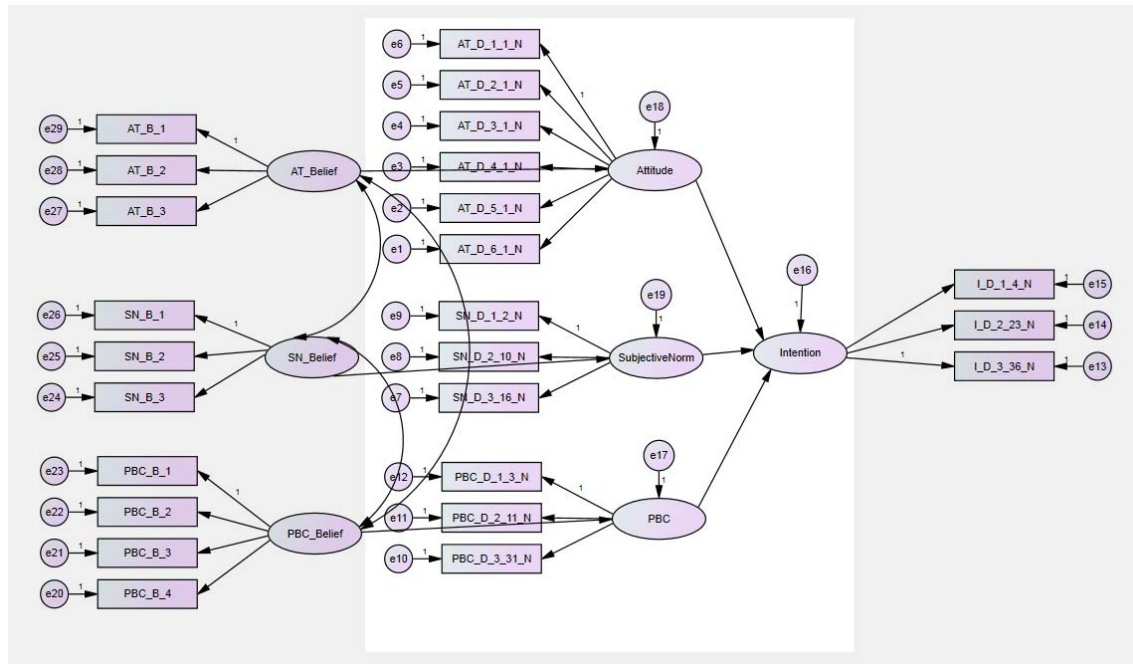


Figure 65: CB-SEM model

The following section explains an exemplary selection of model-fit indices used to evaluate the model.

### A-5.1 Model fit indices

#### Chi-Square GOF

“The chi-square ( $\chi^2$ ) test is the only statistical test of the difference between matrices in SEM and is represented mathematically by the following equation:

$$\chi^2 = (N - 1)(\text{Observed sample covariance matrix} - \text{SEM estimated covariance matrix})$$

or

$$\chi^2 = (N - 1)(S - \sum_k)$$

$N$  is the overall sample size. It should be noted that even if the differences in covariance matrices (i.e., residuals) remained constant, the  $\chi^2$  value increases as sample size increases. Likewise, the estimated covariance matrix is influenced by how many parameters are specified (i.e., free) in the model (the  $k$  in  $\sum_k$ ), so the model degrees of freedom also influence the  $\chi^2$  GOF test” (Hair, Black, Babin, & Anderson, 2010, p. 665).

“Hence, the statistical power of the  $\chi^2$  goodness-of-fit test associated with a large sample may easily lead to the rejection of a theoretically useful model that is closely aligned with the sample covariance structure” (Hoelter, 1983, p. 328).

### **Root Mean Square Error of approximation (RMSEA)**

“One of the most widely used measures that attempts to correct for the tendency of the  $\chi^2$  GOF test statistic to reject models with a large sample or a large number of observed variables is the root mean square error of approximation (RMSEA). Thus, it better represents how well a model fits a population, not just a sample used for estimation (cf. Hu & Bentler, 1999). It explicitly tries to correct for both model complexity and sample size by including each in its computation. Lower RMSEA values indicate better fit” (Hair, Black, Babin, & Anderson, 2010, p. 667).

### **Tucker-Lewis index (TLI)**

“The Tucker-Lewis index (TLI) is conceptually similar to the NFI, but it varies in that it is actually a comparison of the normed chi-square values for the null and specified model, which to some degree takes into account model complexity. However, the TLI is not normed, and thus its values can fall below 0 or above 1. Typically though, models with good fit have values that approach 1, and a model with a higher value suggests a better fit than a model with a lower value” (Hair, Black, Babin, & Anderson, 2010, p. 668).

### **Comparative fit index (CFI)**

“the comparative fit index (CFI) is an incremental fit index that is an improved version of the normed fit index (NFI) (cf. Bentler, 1990; Bentler & Bonett, 1980; Hu & Bentler, 1999). The CFI is normed so that values range between 0 and 1, with higher values indicating better fit. Because the CFI has many desirable properties, including its relative, but not complete, insensitivity to model complexity, it is among the modes widely used indices. CFI values above .90 are *usually* associated with a model that fits well” (Hair, Black, Babin, & Anderson, 2010, p. 668f).

### A-5.2 Guidelines for fit indices in CB-SEM

“Ultimately, fit indices are used to establish the acceptability of any SEM model. [...] A simple rule for index values that distinguishes good models from poor ones across all situations cannot be offered” (Hair, Black, Babin, & Anderson, 2010, p. 669ff).

Hair et al. (2010) provided guidelines for using fit indices in different situations.

No. of Stat vars. (m)	N<250		N>250	
	12<m<30	m≥30	12<m<30	m≥30
$\chi^2$	Significant p-values even with good fit	Significant p-values expected	Significant p-values expected	Significant p-values expected
CFI or TLI	.95 or better	Above .92	Above .92	Above .90
RMSEA	Values <.08 with CFI of .95 or higher	Values <.08 with CFI above .92	Values <.07 with CFI of .92 or higher	Values <.07 with CFI of .90 or higher
Note: m=number of observed variables, N applies to number of observations per group when applying confirmatory factor analysis to multiple groups at the same time				

**Table 86: Goodness-of-fit indices across different model situations**

Source: adopted from Hair, Black, Babin, & Anderson (2010, p. 672)





## - Meta-analytic findings about the TPB -

PREDICTION OF BEHAVIOR (B) FROM INTENTION (I) AND PERCEIVED BEHAVIORAL CONTROL (PBC)						
Study	Activity	Correlations		Regression coefficients		R
		I	PBC	I	PBC	
van Ryn & Vinokur (1990)	Job search, 10-activity index 1-month behavior post-test <sup>a</sup>	.41	.20	.38	.13	.42
Doll & Ajzen (1990)	Playing six video games Mean within-subjects	.49	.48	.14	.12	.51
Schlegel et al. (1990)	Problem drinking — frequency	.47	.48	.28	.32	.53
	— quantity	.41	.60	.29	.43	.64
Ajzen & Driver (in press, a)	Five leisure activities Mean within-subjects	.75	.73	.46	.37	.78
Locke et al. (1984) <sup>b</sup>	Performance on cognitive task <sup>a</sup>	.57	.61	.34	.42	.66
Watters (1989)	Election participation	.45	.31	.39	.19	.49
	Voting choice	.84	.76	.80	.05*	.84
Netemeyer, Burton, & Johnston (1990)	Election participation <sup>a</sup>	.41	.15	.52	.18*	.43
	Losing weight <sup>a</sup>	.18	.22	.08*	.18	.23
Schifter & Ajzen (1985)	Losing weight	.25	.41	.09*	.39	.44
Madden, Ellen, & Ajzen (in press)	10 common activities Mean within-subjects	.38	.28	.34	.17	.42
Ajzen & Madden (1986)	Attending class	.36	.28	.30	.11*	.37
	Getting an 'A' in a course					
	Beginning of semester	.26	.11*	.26	-.01*	.26
	End of semester	.39	.38	.27	.26	.45
Beck & Ajzen (in press)	CCheating, shoplifting, lying—mean	.52	.44	.46	.08*	.53
Netemeyer, Andrews, & Durvasula (1990)	GGiving a gift — mean over five items	.52	.24	.52	.02*	.53

\* Not significant; all other coefficients significant at  $p < .05$ .

<sup>a</sup> Not a direct test of the theory of planned behavior.

<sup>b</sup> Secondary analysis.

**Table 87: Prediction of behaviour (results of a meta-analysis)**

Source: Ajzen (1991, p. 187): with cites of (van Ryn & Vinokur, 1990), (Doll & Ajzen, 1990), (Schlegel, d'Averna, Zanna, DeCourville, & Manske, 1990), (Ajzen & Driver, 1992), (Locke, Fredrick, Bobko, & Lee, 1984), (Watters, 1989), (Netemeyer, Burton, & Johnston, 1990), (Schifter & Ajzen, 1985), (Madden, Ellen, & Ajzen, 1992), (Ajzen & Madden, 1986), (Beck & Ajzen, 1991), (Netemeyer, Andrews, & Durvasala, 1990)

## - Meta-analytic findings about the TPB -

PREDICTION OF INTENTION (I) FROM ATTITUDE TOWARD THE BEHAVIOR (A5B), SUBJECTIVE NORM (SN), AND PERCEIVED BEHAVIORAL CONTROL (PBC)

Study	Intention	Correlations			Regression coefficients			R
		A <sub>B</sub>	SN	PBC	A <sub>B</sub>	SN	PBC	
van Ryn & Vinokur (1990)	Search for a job <sup>a</sup>	.63	.55	.20	.48	.35	.07	.71
Doil & Ajzen (1990)	Play six video games							
	Mean within-subjects	.92	.54	.87	.46	.17	.43	.94
Schlegel eta. (1990)	Get drunk <sup>a</sup>	.63	.41	.58	.41	.15	.36	.72
Aizen & Driver (in press, a)	Five leisure intentions							
	Mean within-subjects	.59	.70	.80	.28	.09*	.62	.85
Watters (1989)	Participate in election <sup>a</sup>	.39	.13*	.30	.32	.03*	.20	.43
	Voting choice	.91	.67	.89	.54	.06*	.39	.94
Netemeyer, Burton, & Johnston (1990)	Participate in elections	.33	.34	.62	.10*	.10*	.54	.64
	Lose weigh <sup>a</sup>	.33	.14	.31	.24	-.02	.47	.56
Schifter & Ajzen (1985)	Lose weight	.62	.44	.36	.79	.17	.30	.74
Madden, Ellen, & Aizen (in press)	10 common activities							
	Mean within-subjects	.52	.36	.37	.43	.22	.26	.63
Aizen & Madden (1986)	Attend class	.51	.35	.57	.32	.36	.44	.68
	Get an A' in a course <sup>b</sup>	.48	.11*	.44	.50	-.09*	.45	.65
Beck & Ajzen (in press)	Cheat, shoplift, lie							
	Mean	.68	.40	.77	.29	.05*	.59	.81
Netemeyer, Andrews, & Durvasula (1990)	Give a gift							
	Mean over five items <sup>a</sup>	.51	.38	.44	.36	.08*	.20	.56
Parker et al. (1990)	Commit traffic violations							
	Mean over four violations <sup>a</sup>	.26	.48	.44	.15	.28	.33	.60
Beale & Manstead (1991)	Limit infants' sugar intake <sup>c</sup>	.43	.33	.52	.26	.16*	.40	.60
Godin, Vezina, & Leclerc (1989)	Exercise after giving birth <sup>a</sup>	.50	-.01*	.60	.76	-.24	.84	.94
Godin et al. (3990)	Exercise after coronary <sup>a</sup>	.42	.13*	.50	.25	.01*	.39	.55
Otis, Godin, & Lambert (in press)	Use condoms <sup>a</sup>	.62	.42	.29	.52	.26	.17	.69

\* Not significant; all other coefficient's significant at  $p < .05$ .

<sup>a</sup> Secondary analysis.

<sup>b</sup> Beginning of semester.

<sup>c</sup> Control group, second interview.

Table 88: Prediction of intention (result of a meta-analysis)

Source: Ajzen (1991, p. 190) with cites of (Parker D. , Manstead, Stradling, Reason, & Baxter, 1990), (Beale & Manstead, 1991), (Godin, Vezina, & Leclerc, 1989), (Godin G. , Valois, Jobin, & Ross, 1990), (Otis, Godin, & Lambert, 1991)

**A-7 LITERATURE REVIEW – GERMAN SAMPLE SEARCH TERMS**

<b>Zahlung</b>	<b>Verhalten</b>	<b>Versandhandel</b>
Zahlungsaufforderung	Kundenklassifizierung	Kaufkanal
Bankkonto	Kundeneinstellung	Wettbewerb
Kreditkarte / Debitkarte	Konsumentenverhalten	Länderspezifika
Mahnung	Konsumenten- Charakteristik	Trends im E- Commerce
Kreditmanagement	Verhaltensspezifika	Sicherheit im Versandhandel
Zahlungsverzug	Konsumentenloyalität	Kataloghandel
Zahlungserleichterung	Kundenbeziehung	Trends im E-Commerce
Factoring / Forderungsverkauf	Kundenzufriedenheit	Einzelhandel
Zahlungssysteme	Kundenwünsche	Distanzhandel
Zahlungsmethoden	Ethnomarketing	
Zahlungstrends	Typisches Verhalten	
Zahlungsinstrumente	Kundenerwartung	
Zahlungsverschiebung	Markenschädigung	
Finanzmanagement	Kundenbedürfnisse	
Zahlungsstop	Zahlungshistorie	
Zahlungsvollzug	Einstellungsvorhersage	
Forderungsausfall	Kaufverhalten	
Privatinsolvenz	Schuldenverhalten	
Zahlungsabbruch	Theorie des geplanten Verhaltens	
	Verhaltensabsicht	

Table 89: Classification of sample search-terms (German)