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Predicting the completion of Debt Management Plans in Credit Counselling

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Abstract

This research was conducted in response to an investigation about Traject51, the screening product of the organization Stadsring51 for debt management plans(DMPs). The psychometric quality of the screening product turned out to be insufficient. It appeared not possible to predict if someone is going to complete a DMP with the screening product, partly because no theory with clear predictors has been used. In this study, it has been investigated whether the theory of planned behaviour with addition of the variable financial risk tolerance has the ability to predict DMP completion in a better way than the current Traject51 by looking at the possibilities of adapting the existing Traject51 instrument to this theory.

The items from Traject51 are viewed and assigned to the dimensions of the model of this study which consist of the variables of the theory of planned behaviour and the financial risk tolerance. In the end, 26 of the 88 items from Traject51 are assigned to a dimension. The answers to the items were already obtained by Stadsring51 during their intake's with the clients. It involved 2665 clients, all of them came from the community of Amersfoort.

Then a factor and reliability analysis has been performed. Based on these analyses, reliable scales have been constructed. A regression analysis analysed the model's predictive ability. A more positive attitude toward DMPs, a higher subjective norm(appreciation of important people in the environment) compared to DMPs and a lower financial risk tolerance, predicted a higher intention to complete the DMPs. The intention did not affect the actual behaviour of completing a DMP. However, the determinants attitude and perceived behavioural control did. The more positive the attitude and the higher the perceived behavioural control, the greater the chance of completing a DMP. Implications are discussed and suggestions for further research are provided.

Introduction

Debts among the Dutch population remains a major problem. Despite an economic recovery, debts are increasing in the Netherlands. About 760,000 Dutch citizens have serious financial problems. Every year, the number of people with payment issues increases by 6% (Movisie, 2017). Especially people with low incomes or benefits are often reported with problematic debts in credit counselling (BSMO, 2015). On May 25, 2016, the NVVK, the society for credit counselling and Social Banking, published its annual figures about credit counselling by 2015. In 2015, 90,400 people are reported at credit counselling agencies because of their financial problems. At first sight this is a stabilization, because in 2014 92,000 registrations were registered. But that is not the case, because a group of people report to the so-called district teams and not directly to the credit counselling agencies. Of these, the NVVK does not have exact figures, but this number is estimated by a few thousands. Of these registrations at district teams, it is known that 80% have financial problems. Also, in 2015, the average amount of the debt of people registered at credit counselling agencies has risen again. From an average of 38,500 euros in 2014 to 42,900 euros in the next year. In addition, almost half of the NVVK members (49%) report that they first had to stabilize their customers; balance the income and expenses. In 2014, stabilization was required for "only" 30% of the customers. These data show that credit counselling is often required to control the debts and in the first instance solving is not possible. The above shows that the amount of debts is not only increasing, but the composition of the debts is also becoming more challenging and requires a lot of craftsmanship from credit counsellors (NVVK, 2015).

In most cases, the debt reduction cannot be controlled without credit counselling. One way to solve financial problems of people is a debt management plan(DMP). Traditionally, this is the most used instrument within credit counselling (Stadsring51, 2016). With a DMP someone can claim to blame the debts by the court, which is also called a "clean slate". However, before this happens, other steps must be taken first. There can only be appeal to the "Wet Schuldsanering Natuurlijke Personen(WSNP)" when a client has been to a credit counselling organization to analyse his or her financial state and problems. Based on the financial information these authorities will make a payment plan to enable the client to pay off the debts, the "minnelijk" trajectory. If this isn't possible, then the client has the right to request the WSNP at the court. This arrangement means that people have a very low spending budget for three years, which is a difficult task for people (Schuldsanering.help).

However, the negative aspects of DMPs should be noted by the people who live with debts. A DMP may not be appropriate for all consumers and the consequences of a DMP, like budget reduction, are often underestimated by people with debts (Stadsring51, 2016). Some consumers may only require the free financial counselling offered by various credit counselling organizations, while they may need to file for bankruptcy. People who consider a DMP as an appropriate option should understand that a DMP is going to change their life and their spending behaviour (Bankrate.com, 2005). Although there are negative aspects, a DMP still has the ability to help certain people get out of debt. It is therefore very important to be able to select those people who are eligible for a DMP. Many credit counselling organizations therefore have their own screening procedures and criteria for the enrolment of the most appropriate clients in a DMP (Xiao and Wu, 2006).

Stadsring51 is a credit counselling organization in the Netherlands which uses such a screening for their clients. Stadsring51 executes the credit counselling for various parties, including the community of Amersfoort. From the urge to renew and develop, they have developed a

screening instrument, Traject51. The aim of Traject51 is to provide more customization, services that fit the financial situation and personal possibilities of the client. Traject51 is a diagnostic tool developed by using experiences from practice, originated with the realization that the resources available for credit counselling can be used more efficiently and effectively. Traject51 is a screening tool to find out if a client is capable to complete a DMP and whether this is financially technically achievable. Traject51 is already used by Stadsring51 since April 2012.

Recently at Stadsring51, a research has been done about the psychometric quality of Traject51. This research investigated the predictive value of the instrument. The results of this study were presented in a report (Noordkamp, 2016). The investigation has shown that the instrument cannot predict whether a client will complete a DMP. Also, the explanatory variance of the instrument, consisting of 88 items, was found to be only 2.3%. Despite these disappointing results, the screening product has been used at Stadsring51 for already five years. Therefore, it is worthwhile to investigate how the predictive capability of Traject51 can be increased. Starting at Traject51, with the development of the screening instrument, the items were not drafted based on scientific literature. For example, no underlying theory has been used that provides support for the 88 items of Traject51 as good predictors of DMP completion. Therefore, this study investigates which factors can be used as predictors for completing a DMP in order that the predictive value of Traject51 can be improved and also to generally develop screening products with a higher quality in the future.

Theoretical framework

The theory of planned behaviour

When looking at the factors that are related to people's behaviour in completing a DMP, the theory of planned behaviour is the most mentioned theory in the literature. The theory of planned behaviour has been widely used in predictions of human behaviour. The theory of planned behaviour focuses on factors that determine an individual's actual behavioural choices. The theory has been widely used in the literature on health, management, marketing, and consumer behaviour and has been validated by many empirical studies (Ajzen, 1991; Armitage and Conner, 2001; Conner and Armitage, 1998). According to the theory of planned behaviour, three variables influence behavioural intentions: the attitude towards the target behaviour, the subjective norms, and the perceived behavioural control. In turn, behavioural intention and perceived behavioural control affect a person's actual behaviour, as shown in Figure 1 (Ajzen, 1991).

An attitude towards a behaviour is defined as a positive or negative evaluation from a person about a relevant behaviour and is composed of the most striking beliefs of a person about the perceived outcomes of performing the behaviour. The subjective norm refers to the perception of a person of whether important persons in the social environment approve or disapprove a behaviour. To capture aspects of behaviour related to volition, the theory is provided with an additional variable, namely perceived behavioural control. Perceived behavioural control describes the perceived difficulty of executing a behaviour, reflecting of both past experiences and expected barriers. As a general rule, the more favourable the attitude towards executing a behaviour, the greater the experienced social approval, the easier the executing of the behaviour is, the stronger the behavioural intention. In turn, the stronger the behavioural intention, the more likely the behaviour will be performed. According to the developer of the theory, the addition of perceived behavioural control has been important to the subjective part, the perceived ability to perform the behaviour. If the intention is considered as the motivational factor, perceived behavioural control

would be considered as a non-motivational factor. A person weights the possibilities and available resources to perform the behaviour. As such, the perceived behavioural control can directly affect both actual behaviour and the intention and can serve as a moderator in the relationship between intention and behaviour. (Xiao and Wu, 2008)

The developers of the theory have also discussed the possible consequences of demographic factors on human behaviour. According to their theory, demographic factors do not directly affect behavioural intention and the actual behaviour, but indirectly through attitude, subjective norm and perceived behavioural control. In other words, differences within these three psychological factors reflect the differences in demographic factors. Thus, in predicting human behaviour, It is not necessary to include demographic variables in the theoretical model (Ajzen and Fishbein, 1980).

The theory of planned behaviour is validated in a wide range of domains, including the domain of negative financial behaviour such as not paying bills. This last domain is important in the current study. The research of Xiao and Wu (2008) has specifically tested the theory of planned behaviour in the field of DMPs. They have developed a questionnaire based on the theory of planned behaviour. With the help of a national credit advisory office, they have spread the questionnaire among customers who were registered for a DMP. The customers who were interested in the survey did response with an email or by post. Three months after the survey, they received the DMP completion status of the participants with the help of the credit advisory office. In total, they collected data of 210 customers. The results of the investigation confirmed that the attitude and perceived behavioural control influenced the intention to complete a DMP. This means that clients in a DMP have a higher intention to complete the DMP when they evaluated the completion of a DMP as positive and when they thought that completion would be easy for them, compared to those who evaluated completion as negative and encountered problems in the process of completing a DMP. This intention to complete a DPM and the perceived behavioural control (the assessment of the difficulty of completion) also affected the behaviour itself according to the theory. The behaviour involved whether or not someone completed the DMP. One particular factor, the subjective norm, showed no significant effect in this study. The subjective norm in this context involves the extent to which people think their family and close friends encourage them to complete the DMP. This result is contrary to the predictions of the theory of planned behaviour in other areas (Xiao and Wu, 2008).

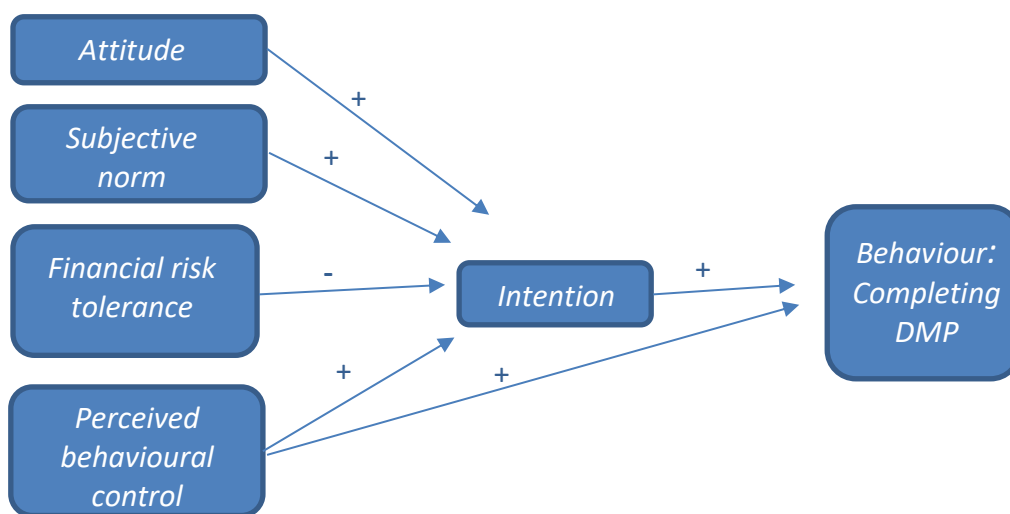
Despite the findings of the research of Xiao and Wu (2008) which suggest that the subjective norm does not affect the intention, this variable is included in the current research. For now, the number of investigations within this particular subject, the DMPs, is too limited to exclude the subjective norm as a predictor. With this research we may be able to verify whether the social norm does affect or not.

Financial risk tolerance

So the theory of planned behaviour has been widely used in many areas of research. TPB is a generic model that needs to be adapted to specific research questions. Additional theoretical concepts may help to adjust the model to the kind of behaviour you want to predict to increase the predictive value of the model. In practice, researchers often add other relevant factors that may influence the behaviour of the particular target audience. In this current research, a theoretical concept is also added to the theory of planned behaviour, namely the financial risk tolerance. According to research by Magendans, Gutteling and Zebel (2017) about the determinants of saving for a financial buffer, behaviour is better measured with a specific attitude rather than a general attitude. According to

them, financial risk tolerance is a specific attitude in the financial field. This concept is defined as the willingness to participate in financial behaviour with uncertain results that have an identifiable negative outcome, thereby it indicates how much financial uncertainty someone is willing to accept. It predicts risk taking and risk avoidance behaviour. The study of Magendans et al. (2017) among students of the University of Twente found that financial risk tolerance had an impact on the intention to save. The lower the financial risk tolerance, the greater the intention to save. This determinant is included in the current study model to see if it's possible to apply this factor to the completion of DPMs and therefore whether it is a better predictor than the attitude in general. Addition of this construct and the satisfaction to the theory of planned behaviour gives the following theoretical model for the current study:

Figure 1: Theoretical model



Research question and hypotheses

Based on this model, the screening product Traject51 is examined and adjusted where possible. The following research question is raised in this research: *Do the factors of the theory of planned behaviour with addition of financial risk tolerance explain more variance together than the current Traject51 instrument in predicting the completing of a DMP?* The following hypotheses are stated:

Hypothesis 1. The attitude, the subjective norm and the perceived behavioural control about DMP completion predict the intention to execute this behaviour in a positive manner.

Hypothesis 2: The financial risk tolerance predicts the intention to complete the DMP in a negative way.

Hypothesis 3. The perceived behavioural control and the intention to complete the DMP predict the actual behaviour positively.

Hypothesis 4. The intention to complete the DMP is the explanatory variable (mediator) between the predictors and the actual behaviour.

Method

Data

This research has used the existing data of Traject51. Traject51 is a screening product that consists of 88 questions. At Stadsring51 the instrument is taken from the clients with the intake by an employee. The employee completes the questions and, in the case of an open question, gives an indication blue or orange to the client's answers, based on established frameworks. This indication will be converted by the instrument into a score for the question. The closed questions will also be converted by the instrument into a score, usually a 0 or 1 score. The scores on all questions form a total score, with an indication blue or orange as well. When someone scores a blue score on the total score, he/she can start a DMP, if he or she scores an orange score, the situation of the client must be improved until he gets a blue score (www.traject51.nl).

In this current study, the items of Traject51 are used. These items are selected and assigned to the variables of the theory of planned behaviour and the other determinant found in the literature. It was checked whether the 88 items from Traject51 could be assigned to the variables from the theoretical model in this research. So the answers of the items have been obtained by Stadsring51 during their intake interviews. All scores on Traject51 in the period from 2013 to 2015 are included in this research. It was about clients who all came from the community of Amersfoort. In total, the data of 2665 persons were analysed in this study. Of these persons, 56.47% were male and 43.53% were women and they had an age range from 19 to 87 years. The average age of these persons was 44 years. Thus, the answers to the questionnaire Traject51 were used, whose items were redistributed. First, definitions were drafted for the variables from the model using the literature. These definitions are shown per variable in Appendix 1. The items of Traject51 who are assigned to the variables are also listed in this appendix. Assignment of the items was done on the basis of the definitions and in consultation between two persons. Of the 88 items from Traject51, 26 items belonged to a definition of a variable from the new model. The items shown in this study have been translated into English. The items are originally Dutch

Analyses

The final scales were determined by using a factor analysis and reliability analysis. A regression analysis was performed to test the model. For the analyses, the SPSS program was used. The analyses are explained below.

Factor analysis and reliability analyses

First, a factor analysis was performed to see whether the items who were subdivided by variable were actually indicators of one underlying dimension. For example, it was examined whether the questions combined to form the construct attitude, were actually measuring one underlying construct that could be interpreted as attitude. The factor analysis looked at underlying patterns and relationships between the different items and placed the items with similar patterns together. For each assumed construct, which has been constructed on the basis of the theory of planned behaviour, a separate factor analysis has been performed with only the items that, according to the theory, score on the construct. For example, for the attitude, a factor analysis was performed with only the items assigned to the attitude in this study. So five different factor analyses were

performed, for each construct one with only the assigned items for this construct. A factor analysis with the 'Principal Axis Factoring' method was performed on all items with 'orthogonal rotation' of underlying factors. A rotation was used, because it benefits the interpretability of the outcome. It indicates combinations of the original factors as new factors. An orthogonal rotation method was used, because it was expected that there were no underlying relationships between the dimensions. When direct oblimin was used in this factor analysis, it was also found that there was no correlation between the dimensions. Thus, there was an independence of the factors, and according to Field (2009), in this case the orthogonal rotation method should be used. Finally, five separate analyses were performed, namely for financial risk tolerance, attitude, perceived behavioural control, subjective norm and intention. Also, a Cronbach Alpha analysis was performed to determine the reliability of the dimensions. For the variables that consist of only two items, a correlation was calculated instead of a Cronbach's Alpha.

Variables

Down here the final division of the scales is shown, what was determined by a factor analysis and a reliability analysis. In fact, only one factor was found per construct. It was considered how to compose scales with the items with the best factor load and highest reliability. According to Field (2009), a factor load above the .35 is sufficient. However, for the variable perceived behaviour control the reliability was too low when a minimum factor load of .35 was maintained. In this case, a factor load of at least .50 was maintained as a norm. A scale has a sufficient reliability if α is at least .70. Below are the final scales shown. When a scale consisted of only two items, a correlation was determined between these two items. A correlation is sufficiently reliable if the correlation coefficient r is at least .50.

Financial risk tolerance (N=6 items):

Financial risk tolerance is the degree to which someone is prepared to perform behaviour with uncertain financial consequences. The reliability of this scale is $\alpha = .76$. The scale consists of the following items:

Table 1: Items *financial risk tolerance* with factor load

Items	Factor load
Are you generally careful with your expenses?	.74
Do you regularly buy from an impulse?	.73
How does your spending behaviour looks like?*	.68
Do you find it's hard to resist discounts?	.59
Did you buy things or did you expenses the last 3 months that you cannot afford?	.45
Are you regularly surprised by expenses?	.37

*This item is scored with blue or orange

Perceived behaviour control (N=2 items):

To what extent does the client himself or the professional expect the client will complete the DMP. At this scale a factor charge of at least .50 was maintained. After the factor analysis, this scale consisted of 3 items. In this case, there was a scale with a reliability of $\alpha = .32$. This reliability was insufficient, so the item *Does the client have sufficient comprehension for a DMP?* was deleted. The

final scale therefore consisted of two items. The correlation between the two remaining items was high enough, namely $r(2664) = .57$. The scale consists of the following items:

Table 2: Items *Perceived behaviour control* with factor load

Items	Factor Load
Do you think the client has sufficient skills to persist the DMP process?	.75
Is this client able to complete the DMP process successfully on the basis of your overall impression?	.62
Does the client have sufficient comprehension for a DMP?*	.53

* This item was deleted

Subjective norm (N=1 item):

The subjective norm implies whether the clients think that important persons in their environment are positive or negative about following a DMP. For the subjective norm only two items were found in Traject51. The item *Does the partner want to cooperate to the DMP?* and the item *Do others help you to deal with your debts?* In the factor analysis, the items did not appear to be one factor. Also, these two items appeared to have a very low correlation of .04. In this case, one of the items was chosen that represents the scale. The question whether the partner wants to cooperate was deleted, since not every person had a partner and so this item wasn't filled in by anyone. So the scale consists of the item: *Do others help you to deal with your debts?*

Attitude (N=1 item):

The attitude means whether someone has a positive or negative evaluation towards following a DMP. This scale also consists of one item, namely the item *Do you think the client has the right attitude to persist the DMP process?* The item *What do you want to do to live without debts?* did not appear to belong to the same factor according to the factor analysis. Also, these two items had a very low correlation of -.05. So, this scale also consists of one item. This item was scored differently from the other items. Namely a 3-point score for the answer Yes instead of an 1-point score.

Intention (N=4 item):

This is the intention to complete the DMP. The reliability of this scale is $\alpha = .58$. The scale consists of the following items:

Table 3: Items *intention* with factor load

Items	Factor load
What did you do to deal with your debts?*	.65
What concrete ideas do you have to reduce your debts?*	.62
What do you want to do to live without debts?*	.42
Do you always meet payment agreements?	.38

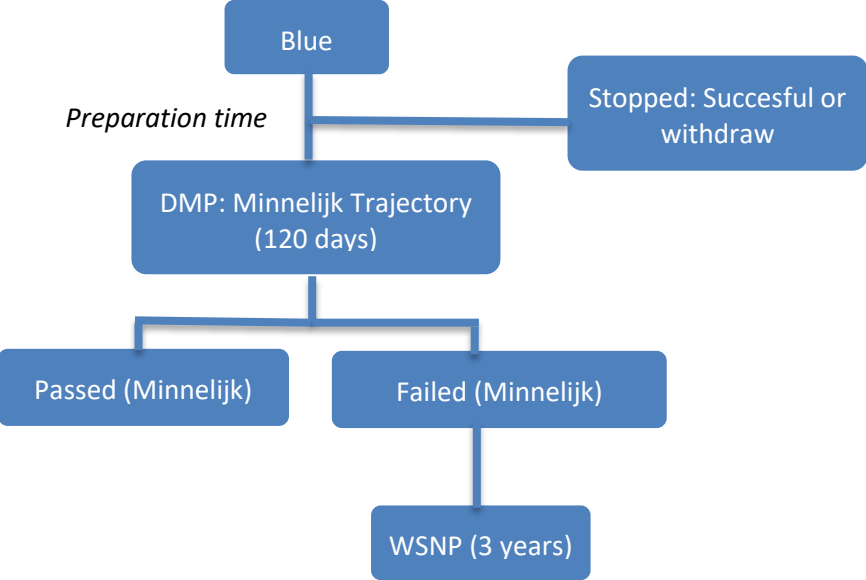
*This item is scored with blue or orange

Behaviour

Because a DMP is an intensive course of at least three years, there is not enough information available about the clients in this research. It is unknown whether the clients did complete the DMP or not. Therefore, in this case a person's preparation time was chosen as actual behaviour. The preparation time is the time the client needs from the moment of the questionnaire outcome until

the start of the “minnelijk” trajectory. During this preparation time, the client is actively working to get ready for the DMP by for example, correcting all the data and improving his situation with a coach. Particularly in this process, the client himself is actively working to ensure that he/she could complete the DMP and therefore, this factor could be representative for the completing of a DMP. Figure 2 shows the preparation time in the course of a DMP. A DMP consists of two different trajectories. A “minnelijk” trajectory when the debt counsellor attempts to reach an arrangement with your creditors and a "WSNP" where the clients themselves have to go through. The “minnelijk” trajectory is a voluntary DMP whereby the credit counsellor makes a payment proposal to all creditors. If all creditors agree with the payment proposal, then the client has passed the “minnelijk” trajectory. If the “minnelijk” trajectory doesn't work because the creditors do not agree, can be chosen for the "WSNP", the legal process. You must submit a request to the court. After this the application is being processed. If the conditions are met, the "WSNP" can be started. During the preparation time clients may also stop because, they have already been out of trouble (successful) or the client has withdrawn the request of help despite the fact he/she is still in trouble.

Figure 2: DMP course



Regression analysis

In order to verify if the determinants of the theoretical model are related as the model indicates, a regression analysis was used. First, the scores of the variables are determined by calculating the average score of the items per variable. Based on the theoretical model, the purpose was to investigate whether the actual behaviour was influenced by the intention and the perceived behaviour control and whether the intention was the explanatory variable (mediator) between the independent variables and the actual behaviour. A variable can be considered as a mediator when it carries the influence of a particular independent variable on a dependent variable. Generally, a mediation occurs when: (1) the independent variable significantly affects the mediator; (2) in the absence of the mediator the independent variable significantly affects the dependent variable; (3) the mediator has a significantly unique effect on the dependent variable, and (4) the effect of the independent variable on the dependent variable will be reduced with the addition of the mediator to

the model. In this case, the intention is the mediator, the preparation time the dependent variable and other variables/predictors are the independent variables. All these relationships are tested with a regression analysis. In the regression analysis, a smaller sample of 525 clients was used, because the preparation time was unknown for the other clients in the database. In the original screening product, Traject51, clients were classified into two groups, blue and orange, based on the outcome of the questionnaire. Blue meant the client was ready for a DMP. In the case of orange, the situation of the client must be improved before he/she can start a DMP. So the preparation time of these persons was unknown and their data couldn't be used in the sample (Figure 2). Of the sample that was used in the regression analyses, 53.14% were men and 46.86% were women and they had an age between 22 and 83 years. They had an average age of 43 years. The average age of the previous sample, the sample that was used in the factor and reliability analyses, was 44 years and the male/female ratio was around the 56% and 44%. So these demographic data is comparable between both samples.

Results

A regression analysis has been performed to test the theoretical model. The results show that the intention and perceived behavioural control together explain 11.5% of the variance in behaviour ($R^2=.115$; $F(2,162) = 10.53$, $p < .001$). The financial risk tolerance, subjective norm, perceived behavioural control and attitude explain 17.3% of the variance in intention ($R^2=.172$; $F(4,520) = 28.40$, $p < .001$). Figure 3 shows the results of the regression analysis based on the B and Beta values. The B value indicates the average increase of the dependent variable if the independent variable increases by 1 unit. If the B has a negative value, the relation is also negative. Beta is the standardized version of B. The Beta coefficient compares the strength of the effect of each individual independent variable to the dependent variable. The higher the absolute value of the Beta coefficient, the stronger the effect. For example, a Beta of -.9 has a stronger effect than a beta of +.8. With this value the variables can be easily compared to each other.

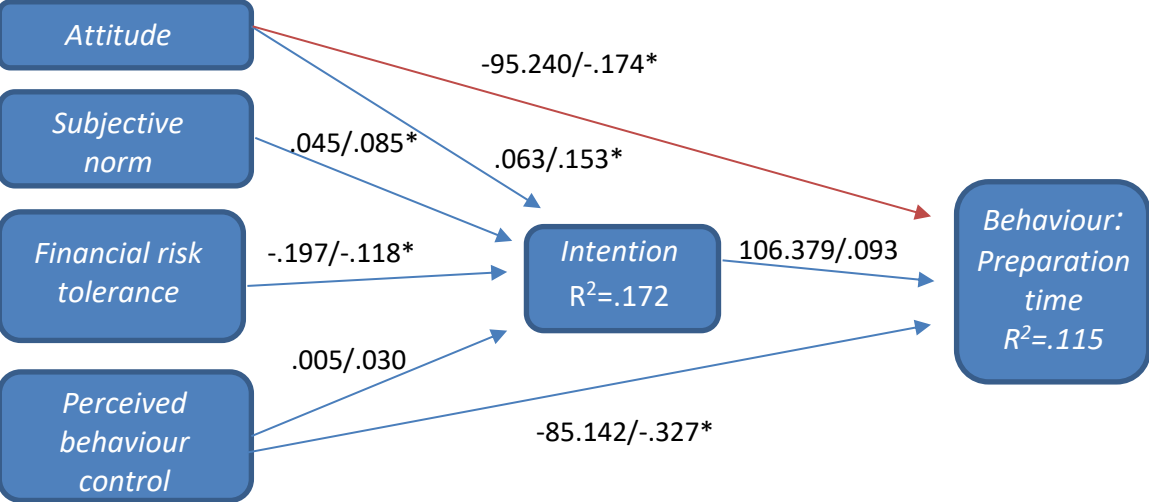
According to the results in Figure 3, hypothesis 1 can partly be assumed. The attitude and the subjective norm are significantly related to the intention and this is also a positive relation. So the higher the attitude and the subjective norm of a client, the greater that person's intention to decrease the preparation time. For example if the attitude increases with one point, the intention increases with .063 point ($B=.063$) and if the subjective norm increases with a score of one point the intention increases with .045 point ($B=.045$). However, the perceived behavioural control doesn't show any significant relation with the intention. So this part of hypothesis 1 can be rejected, the perceived behavioural control is not a predictor of the intention to complete a DMP.

Hypothesis 2 can also be assumed in comparison with the first hypothesis. For the financial risk tolerance, a significant negative relation has been found with the intention. If people are less tolerant in terms of taking financial risks, than they have a greater intention to complete a DMP. The intention increases with .197 point if the financial risk tolerance is one point lower ($B=-.197$). Hypothesis 3 states that the perceived behavioural control and intention are associated with the ultimate behaviour. This is only true for the perceived behavioural control. As expected, a significant negative relation is found between this variable and the behaviour. So a person has a shorter preparation time when he/she has a higher perceived behavioural control. This means the time between the diagnosis and the start of the DMP is shorter with 85,142 days with an increase of one point on the perceived behavioural control ($B=-85.142$). This also appears to be the strongest relationship in the model ($Beta=-.327$). The intention does not show a significant relation to the behaviour, so hypothesis 4 can be rejected. This hypothesis suggests that the intention interacts as a mediator between the predictors and the behaviour. The conditions for a mediation are not met. The mediator has not a significantly unique effect on the dependent variable, namely there is no significant effect between the intention and the preparation time. In addition, a mediation analysis was performed with Process to check whether there is actually no mediation by the intention. The indirect effect was examined. The results indicate that this indirect effect is not significant, since in all mediation analysis with each predictor separately, the '0' falls within the confidence interval. In other words, there is no reliable effect of the predictors, through the intention, on the preparation time. No mediation is occurred.

In addition, there is a significant relation between the attitude and the behaviour. This is a negative relation, so when someone has a more positive image of a DMP with a score of one point, than he/she has a lower preparation time of 95,24 days ($B=-95.240$). A client is more actively working

to get ready for the DMP when he/she is positive towards a DMP. However, this is an additional finding. The model did not intend to measure this relation.

Figure 3: Regression analysis with B/Beta



* Significant ($p < 0.05$)

Discussion

This research was conducted in response to a previous study at Stadsring51. In this study psychometric quality of their screening product for the DMPs, Traject51, was researched. The screening product did not prove to be able to predict whether someone was going to complete the DMP, partly because no theory with clear predictors was used. In this research, it has been investigated whether the theory of planned behaviour with addition of a number of variables has the ability to predict DMP completion. The research question was: *Do the factors of the theory of planned behaviour with addition of financial risk tolerance explain more variance together than the current Traject51 instrument in predicting the completing of a DMP?* It has been investigated which items of the Traject51 instrument could be used for the variables of the theory of planned behaviour and the financial risk tolerance. These items have formed the final new scales based on a factor and reliability analysis. The items of Traject51 have been used because, following people during a DMP is a long trajectory of at least 3 years. Stadsring51 already had all the necessary information, such as the preparation time and the answers to the items of a large group of people, namely 2665 people. It was also possible to make good, reliable scales with the items from Traject51. The reliability analysis showed that the final scales generally have a good reliability. But for the scales attitude and subjective norm, only one item was left after the analyses.

With the help of four hypotheses an answer was given to the research question. The theoretical model partially has a predictive ability. All variables of the model predict the intention to complete the DMP except the perceived behaviour control. This variable, on the other hand, predicts the actual behaviour, just like the attitude. However, the intention had less predictive value, it did not affect the actual behaviour. Summarized, it can be concluded that the theoretical model in this research is a better predictor for DMP completion than Traject51. The explanatory variance in this study is 11.5% for the behaviour. The intention and perceived behavioural control together explain 11.5% of the variance in behaviour. The explanatory variance for the behaviour in the original screening product, Traject51 used by Stadsring51, amounted 2,3%. So the new theoretical model explains considerably more variance in preparation time behaviour. In addition the financial risk tolerance, subjective norm, perceived behavioural control and attitude explain 17.3% of the variance in intention. In practice, this is not a bad variance and adding these variables to the model can therefore be positive for the ability to predict the intention to complete a DMP.

Despite the improvement of the explanatory variance, there are some points of criticism for this research. In this research, the preparation time has been chosen as actual behaviour. The preparation time is the time the client needs from the moment of the questionnaire outcome to the commencement of the DMP. During this preparation time, the client is actively working to improve his situation, in order that he/she can start de DMP. The preparation time might not give a good representation of the final behaviour. Because the data whether someone has actually complete or failed the DMP wasn't available yet, it has been chosen to take the preparation time as the target behaviour. However, this does not accurately reflect if someone will complete the DMP or not. It could rather be an additional predictor of completing the DMP. It might also be a part of the intention to complete the DMP.

In addition, this research has chosen to use the items of Traject51 and divide these items over the new determinants. This could also have been a limitation on the investigation. For some variables, such as the subjective norm, only a few items were found in Traject51. There are also many things to say about the quality of the items. Are the items representative enough for the constructs?

The items were already drafted before the constructs were determined. Normally, this is done vice versa. Often, an operationalization table is used by composing the items to a construct. First, the definition of a construct is determined. Based on this definition, the underlying dimensions and indicators are determined. And then, the items will be created using these indicators. In this way, there is a bigger change that the items will apply to the construct and possibly the explanatory variance of the model could be increased more. Also with this method, reliable scales for the attitude and social norm could be formed. These now consisted of only one item. And finally, the impact of another determinant could be tested than, namely the satisfaction with the service. Because a DMP is a form of a consumer service the satisfaction is also an important determinant. Based on the literature, satisfaction was an important factor for the consumer to decide to continue with a service and to complete the use of a service (Hrubes et al., 2001). So, when consumers feel more satisfied with the service provided by a credit counselling organisation, they may be more able to complete the DPM completely. The research by Xioa and Wu (2008) is the first study in the field of DMP counselling that adds this variable to the theory of planned behaviour and has examined the influence of satisfaction with the DMP service. The results show that the satisfaction with the services during the DMP increases the intention to complete the DMP. (Xiao and Wu, 2008) However, the influence of the satisfaction with the service on the intention to complete a DMP could not be investigated in this current study. The reason for this was that there were no items about the satisfaction in Traject51. This variable has therefore been left out of consideration in this study. If a post-hoc method had been used, creating items according to the determinants from the literature, this would have been possible.

Also in the case of the assignment of the items to the constructs, a restriction is attached to this research. The items have been assigned in consultation between two persons in a joint session. It was better to assign the items separately and to compare these assignments with each other, this would benefit the inter-rater reliability. In addition, with the factor and reliability analysis a different sample is used than with the regression analysis. This because the preparation time of a large number of people was unknown. This could be seen as a limitation. However, this has been consciously chosen because, a larger sample is beneficial to the reliability. It was also found in the literature that the demographic characteristics are already represented in the predictors, so any differences between the two samples do not cause any problems. In addition, the average age and the ratio male/female were comparable between the two samples. The only disadvantage is that the sample of the regression analysis consists only of persons with a blue characteristic. These persons have previously gone through the screening of the original Traject51 and were found to be suitable for the DMP. Because of this earlier screening, the differences between the persons in the sample may be smaller, what also limits the variance.

Finally, there is another comment about the measuring scales. The items were all scored dichotomously, so with a 0 or 1 score. From a scientific point of view, the use of dichotomous scales could be a limitation of this research. A dichotomous scale differentiates less well between the different observations. On such a scale, it can only be stated whether someone possesses an element with good quality or not. The distinctive character of such a scale is therefore less than for example, a Likert-scale that is used more often in scientific research and consists of three, five or seven scoring options. Thus, the use of dichotomous scores could have limited the variance. In addition, in practice often a negative point is mentioned, namely that dichotomous scales are forcing people to choose a direction. There is no neutral answer. However, this is different in the practice with this questionnaire, Traject51. The clients do not take the questionnaire themselves, but they are scored

by a professional. These people have a lot of experience with taking the questionnaires and can therefore determine which answer applies. In this case, a dichotomous score is only more effective in practice. There can be less confusion about which answer must be chosen, which limits the mutual differences between employees and thus increases the inter-rater reliability.

So far, in the Netherlands, little research has been done about DMPs, despite the major problems in this area. Therefore, more research needs to be done about this subject, within our country. In general, there is also little literature available about the determinants of DMP completion. Research on this topic is time consuming, it's necessary to follow people for a long period of at least 3 years. In this current study, this was not possible, thereby data was missing about the completing or failing of the DMPs. With follow-up research, it is important to make better items based on the constructs. In that case, it would also be possible to add items about the service satisfaction, in that order the influence of this variable can also be tested. It is expected that the explained variance will be more higher when this ad-hoc method of creating items is used. However, when we look at the research by Xiao and Wu (2008), who did make items based on the constructs, it appears that the explained variance is not much higher than in this current study. In the research of Xiao und Wu (2008) the explained variance on behaviour is 11.6% compared to 11.5% in this current study. So this is hardly a difference. However, the explained variance on the intention is a little bit higher. This amounts 26.8% compared to 17.3% in this study. (Xiao und Wu, 2008)

This study also showed that the financial risk tolerance is a good addition to the model. Before, the effect of this variable has only been tested on the intention of saving (Magendans, et al., 2017) and never in the field of DMPs. From now, this determinant must be included in future research. Moreover, it also appeared that the attitude has a direct effect on the behaviour, which was not expected. This may be caused by the composition of the intention. The items under this construct may not be good enough, in order that the intention could not bear the relationship between attitude and behaviour which resulted in a direct effect. There was also no link between the intention and the behaviour. In addition, the attitude consisted only of one item and on that account could not be a reliable scale. It is therefore important to do also further research about this relationship between the attitude and the behaviour.

The final findings indicate that even with the existing Traject51 you can already get good findings. There is also a clear possibility of adjusting Traject51. Traject51 can be used much more effectively. The 14 items used in the scales of this research have already proved to be a better result than all the 88 original items of Traject51. This means that the shortening of Traject51 will lead to better psychometric quality, but it also ensures that the time spent on the intakes can be shortened. However, the limitations of this research must be kept in mind. On that account, they could use the scales of this research and focus on optimizing the items. The existing items of Traject51 can partly be used, on the same way as in this research. However, new items need to be added. The findings in this research can also lead to interventions. If, for example, further studies also show that the attitude has a direct effect on the behaviour, interventions to ensure that people will maintain a DMP can be specifically focus on the attitude.

Finally, it is important to do more research about the theoretical model of this study. It is also important for the further improvement of the credit counselling in the Netherlands with the aim to give people the best help in their financial problems. In general, it is always important to have a good theoretical support before anything is going to change in practice. Because nothing is so practical as a good theory.

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Appendix 1

Variables	Definition	Items from Traject51*
Financial risk tolerance	The degree to which someone is prepared to perform behavior with uncertain financial consequences.	<p>Are you generally careful with your expenses? <i>Bent u in het algemeen voorzichtig met uw uitgaven?</i></p> <p>Do you regularly buy from an impulse? <i>Koopt u regelmatig vanuit een impuls (door aanbiedingen)?</i></p> <p>How does your spending behaviour looks like? <i>Hoe ziet uw bestedingsgedrag er uit?</i></p> <p>Do you find it's hard to resist discounts? <i>Vindt u het moeilijk om aanbiedingen te weerstaan?</i></p> <p>Did you buy things or did you expenses the last 3 months that you cannot afford? <i>Heeft u de afgelopen 3 maanden dingen aangeschaft of uitgaven gedaan die u zich eigenlijk niet kunt veroorloven?</i></p> <p>Do you spend money on gambling and lotteries? <i>Geeft u geld uit aan gokken, loterijen, kansspelen e.d.?</i></p> <p>Do you have the impression that the client has contracted unnecessary insurance in addition to the necessary insurance? <i>Heeft u als [[hulpverlener]] de indruk dat de [[klant]] naast de noodzakelijke verzekeringen ook onnodige verzekeringen heeft afgesloten?</i></p> <p>Are you regularly surprised by expenses? <i>Wordt u regelmatig door uitgaven verrast?</i></p>
Perceived behaviour control	To what extent does the client himself or the professional expect the client will complete the DMP.	<p>Is the treatment of the general practitioner and/or medical specialist a blockade for a DMP? <i>Is de behandeling van de huisarts en/of medisch specialist een blokkade voor schuldhulpverlening?</i></p> <p>Is the treatment by the psychologist, therapist and/or social worker a blockade for a DMP? <i>Is de behandeling door de psycholoog, therapeut en of maatschappelijk werker een blokkade voor schuldhulpverlening?</i></p> <p>Is there a blockade for a DMP due to physical disability and/or a psychosocial disorder etc. for which the client is no longer in treatment? <i>Is er sprake van een blokkade voor schuldhulpverlening door een lichamelijk gebrek en/of psychosociale aandoening e.d. waarvoor cliënt niet (meer) onder behandeling is?</i></p>

		<p>Does the client have enough knowledge of the Dutch language for a DMP? <i>Heeft de [[klant]] voldoende kennis van de Nederlandse taal voor een schuldregeling?</i></p> <p>Does the client have sufficient comprehension for a DMP? <i>Heeft de cliënt voldoende begripsvermogen voor een schuldregeling?</i></p> <p>Do you think the client has sufficient skills to persist the DMP process? <i>Vindt u dat de [[klant]] over voldoende vaardigheden beschikt om het schuldsaneringstraject vol te houden?</i></p> <p>Is this client able to complete the DMP process successfully on the basis of your overall impression? <i>Is deze [[klant]] op basis van uw algehele indruk op dit moment in staat het schuldregelingstraject succesvol af te ronden?</i></p> <p>Are the debts adjustable, which makes the DMP possible? <i>Zijn de schulden regelbaar, waardoor de schuldregeling mogelijk is?</i></p>
Attitude	Whether someone has a positive or negative evaluation towards following a DMP.	<p>Do you think the client has the right attitude to persist the DMP process? <i>Vindt u dat de [[klant]] over de juiste houding beschikt om het schuldsaneringstraject vol te houden?</i></p> <p>What do you want to do to live without debts? <i>Wat heeft u er voor over om zonder schulden te leven?</i></p>
Subjective norm	Whether the clients think that important persons in their environment are positive or negative about following a DMP.	<p>Does the partner want to cooperate to the DMP? <i>Wil de partner dan meewerken aan de schuldhulpverlening?</i></p> <p>Do others help you to deal with your debts? <i>Helpen anderen u met het aanpakken van uw schulden?</i></p>
Intention	The intention to complete the DMP.	<p>What did you do to deal with your debts? <i>Wat heeft u er zelf aan gedaan om uw schulden aan te pakken?</i></p> <p>What concrete ideas do you have to reduce your debts? <i>Welke concrete ideeën heeft u om uw schuldenlast te verminderen?</i></p> <p>Do you always meet payment agreements? <i>Komt u betalingsafspraken altijd na?</i></p>

		<p>What do you want to do to live without debts? <i>Wat heeft u er voor over om zonder schulden te leven?</i></p> <p>Have you ever had a DMP? <i>Heeft u al eerder schuldhulpverlening gehad?</i></p> <p>Have you been referred to the DMP counselling by an agency? <i>Bent u via een instantie doorverwezen naar schuldhulpverlening?</i></p>
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* The items are originally Dutch in Traject51