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# Completing Debt Management Plans in Credit Counseling: An Application of the Theory of Planned Behavior

Jing Jian Xiao and Jiayun Wu

*Psychological factors associated with consumer behavior in completing debt management plans (DMPs) in credit counseling were identified. Guided by the theory of planned behavior, the study used a unique data set combining the survey data along with plan completion status data from a sample of clients of a national credit counseling agency. Findings suggest that consumers are more likely to report their intentions toward completing a DMP when they view completion favorably and anticipate completing the plan with ease, compared to those who view completion negatively and anticipate difficulty in completing a plan. In turn, the study shows that consumers' behavioral intentions directly affect their behavior—in this case, DMP completion. Furthermore, some evidence suggests that satisfaction with plan services increases consumers' intentions to complete a plan, and also that their perceived control directly and positively affects plan completion behavior. Study findings can be used by credit counselors and educators to develop strategies to help clients successfully complete their DMPs.*

*Key Words: credit counseling, debt behavior, debt management plan, theory of planned behavior*

## Introduction

The traditional nonprofit credit counseling industry emerged in the 1950s and 1960s in response to the rapid growth in unsecured consumer debt during that time (Schiller, 1976). Recent evaluation research indicated that services provided by credit counseling agencies, especially counseling services, have improved financial behaviors of consumers with debt problems (Ellichausen, Lundquist, & Staten, 2007). According to a comprehensive review of the literature pertaining to the credit counseling industry, these credit counseling agencies typically offer four types of services to consumers: financial education, budget counseling, debt management plans (DMPs), and bankruptcy referrals (Hunt, 2005). This study focused on identifying psychological factors that affect consumer completion of DMPs in credit counseling.

In a DMP, a consumer makes a set amount of payment to a credit counseling agency each month. The agency uses the funds to pay debtor's credit card bills, student loans, medi-

cal bills, or other unsecured debts according to the payment schedule worked out between the consumer and his or her creditors. Creditors may agree to lower interest rates or waive certain fees if the consumer repays the debt through a DMP (Federal Trade Commission, 2005).

A DMP could benefit the three parties directly involved: consumer, creditor, and credit counseling agency. The consumer could potentially avoid harassing creditors, collection agencies, and legal actions; receive lower interest rates and fees; and protect his or her credit history if bankruptcy is avoided. Under a DMP, the creditor receives full or partial payment of the principal of the debt. At first, a DMP may appear similar to a Chapter 13 repayment plan, but they differ in several important aspects (see Hunt, 2005 for a detailed discussion). Some research shows that in terms of principal recovery, the outcome from a DMP is slightly better than that of a Chapter 13 repayment plan (Hunt, 2005). The unique role of the credit counseling agency is to serve as a middleman, to receive "fair share"

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payments from the creditor, and to collect service fees from the consumer. Beltz (2004) conducted a theoretical analysis and concluded that a strong partnership between creditors and credit counselors who provide DMPs could benefit creditors, credit counselors, and debt-trapped consumers alike. In current years, average “fair share” payments from creditors have been decreasing because of competition among traditional and emerging credit counseling providers (Hunt, 2005). Therefore, revenues, including DMP generated fees paid by customers, are critical for the survival and success of many credit counseling agencies.

However, the negative aspects of DMPs should be noted. A DMP may not be appropriate for all consumers. Some consumers may only require the free financial counseling offered by various credit counseling services, while others may need to file for bankruptcy in order to protect their financial interests. Many credit counseling agencies have their own screening procedures and criteria for enrolling the most appropriate consumers in a DMP. The new bankruptcy law requiring pre-filing counseling has provided more opportunities for consumers to make appropriate decisions among their options. In addition, unethical approaches toward consumers with debt problems exist in the credit counseling market (Loonin & Plunkett, 2003). For those consumers who consider a DMP an appropriate option, they need to understand that while a DMP may not hurt their existing credit score, it may limit their ability to obtain new credit (Bankrate.com, 2005).

Even though negative aspects exist, DMPs still possess the potential to assist certain consumers in getting out of debt. For some consumers, a DMP may be their best choice among several options. In an ideal situation, consumers would be fully informed about their options (e.g., whether to enroll in a DMP or to file for bankruptcy) and would make decisions appropriate to their situation. Similarly, all creditors and credit counseling agencies would behave ethically and professionally. Under these conditions, a DMP can benefit all parties directly involved. Several empirical studies support the beneficial aspects of DMPs for consumers. A recent study found that consumers who were recommended for a DMP and chose to start payments had a significantly lower incidence of bankruptcy over the two years following counseling (Staten & Barron, 2006). Evidence from another study indicated that the well being of clients in DMPs has improved (O’Neill, Prawitz, Sorhaindo, Kim, & Garman, 2006).

In the current study, we applied the theory of planned behavior to identify factors associated with consumer behavior in completing a DMP in credit counseling. The theory of planned behavior is widely used in human behavior predictions. To our knowledge, this is the first study to apply this theory to consumers’ DMP completion behavior in credit counseling. Compared to previous related studies, the current study is also the first to focus on the DMP completion behavior itself. In addition, this study used a unique data set that combined both survey and plan completion status data from consumers enrolled in a DMP. This data set allowed us to explore associations between determinants of DMP completion behavior and the actual behavior itself. Findings from this study helped us to understand factors related to this particular behavior and shed light on factors associated with consumer financial behavior in general.

### **Previous Research on Consumer Behavior in Credit Counseling**

Previous studies on consumer behavior in credit counseling have focused on various aspects of this phenomenon. Tokunaga (1993) compared consumers who used credit counseling services with a control group in San Jose and found that the clients who received credit counseling took fewer steps to retain their money and expressed greater anxiety about financial matters. Several studies have focused on whether or not consumer credit counseling services improve consumer credit management practices. Using data from clients of agencies affiliated with the National Foundation of Consumer Credit, researchers provided evidence that credit counseling positively affects credit use and payment behaviors (Staten, Ellichausen, & Lundquist, 2002; Ellichausen et al., 2007). A study on service delivery channels to credit counseling clients indicated that no channel differences existed in credit management practices and outcomes, but consumers enrolled in a DMP were less likely to file for bankruptcy (Staten & Barron, 2006). Using data collected from an independent credit counseling agency, another group of researchers also found that credit counseling improved these clients’ financial behaviors (Kim, Garman, & Sorhaindo, 2003). They also found that credit counseling and positive financial behaviors contributed to family well being and subsequently to clients’ health. Findings from another study suggested that clients in DMPs improved their well being, as indicated by improved health and fewer negative financial events (O’Neill et al., 2006).

Several studies examined the desires and behaviors of consumers in credit counseling. When educational desires of credit counseling clients were examined, their desires were similar to those who presumably adequately managed their financial resources, but differed in their prioritization; credit counseling clients gave priority to budgeting and credit management (Bailey, Sorhaindo, & Garman, 2003). Several researchers have examined the association between financial behaviors of clients in credit counseling and their financial satisfaction and health. Xiao, Sorhaindo, and Garman (2006) found that employment, retirement resources, positive family relationships, and self-perceived positive financial behavior performance were related to positive financial behaviors. Furthermore, positive financial behaviors were associated with clients' financial satisfaction. O'Neill, Sorhaindo, Xiao, and Garman (2005) examined financial behaviors and health of credit counseling clients and found that for 6 out of 10 financial behaviors, respondents who reported improved health were more likely to report improved finances. Another group of researchers applied the transtheoretical model of change to debt-reducing behavior among credit counseling clients (Xiao, Newman, Prochaska, Leon, & Bassett, 2004; Xiao, et al., 2004). They identified different intervention strategies for each stage of behavior change.

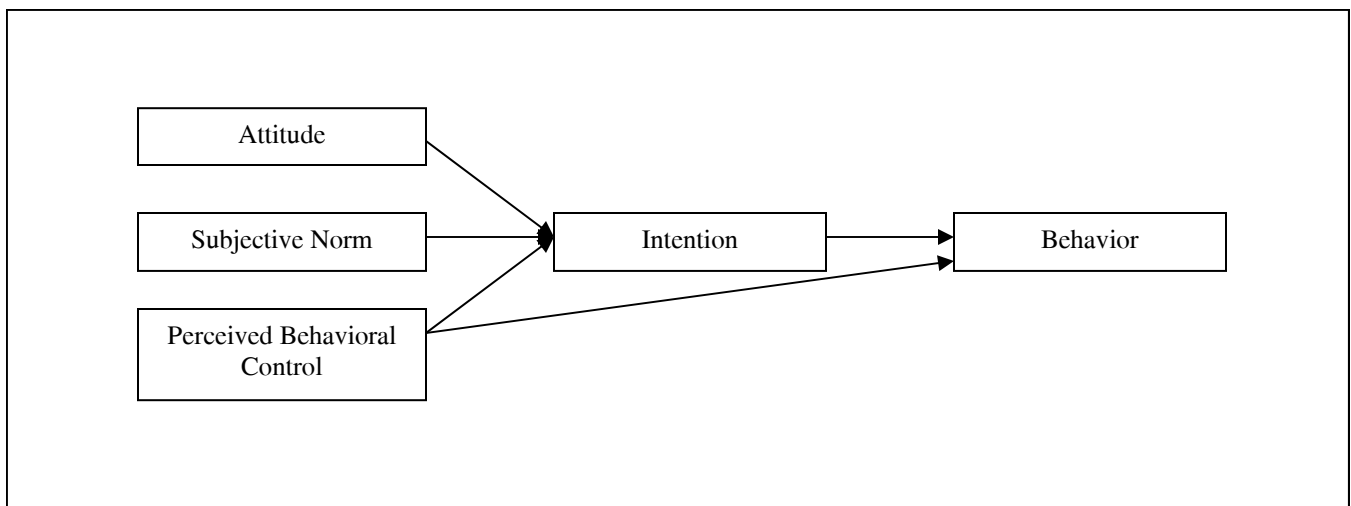
Most previous studies reviewed were descriptive in nature, did not utilize theories explicitly, and used only survey data. Some previous studies examined behaviors of consumers enrolled in DMPs, but none focused on identifying factors associated with the DMP completion behavior. This study attempted to fill in this research gap.

## Hypotheses

### *Factors Suggested by the Theory of Planned Behavior*

The theory of planned behavior focuses on factors that determine an individual's actual behavioral choices (Figure 1). It has been widely used in the literature on health, management, marketing, and consumer behavior and has been validated by many empirical studies. For a review of applications of this theory, see Xiao (2008). According to the theory of planned behavior, three antecedents influence behavioral intentions: (a) attitude towards the target behavior, (b) subjective norms, and (c) perceived behavioral controls. In turn, behavioral intention and perceived behavioral control influence a person's behavioral patterns (Ajzen, 1991). An attitude toward a behavior is defined as a person's positive or negative evaluation of a relevant behavior and is composed of a person's salient beliefs regarding the perceived outcomes of performing the behavior. A subjective norm refers to a person's perception of whether significant referents approve or disapprove of a behavior. To capture nonvolitional aspects of behavior, the theory incorporates an additional variable, perceived behavioral control, which represents an improvement on the earlier version of this theory, the theory of reasoned action (Fishbein & Ajzen, 1975). Perceived behavioral control describes the perceived difficulty level of performing the behavior, reflecting both past experience as well as anticipated barriers. As a general rule, the more favorable the attitude toward performing a behavior, the greater the perceived social approval, the easier the performance of the behavior is perceived to be, and the stronger the behavioral intention. In turn, the stronger the behavioral intention, the more likely the

**Figure 1. The Theory of Planned Behavior (Ajzen, 1991)**



behavior will be performed. According to the theory developer, adding perceived behavioral control to the theory captures the self-perceived ability to perform the behavior. If intention is considered as the motivational factor, perceived behavioral control would be considered as a non-motivational factor that represents opportunities and resources available to this person in performing the behavior. As such, the perceived behavioral control may directly affect both the individual's behavior and intention (Ajzen, 1991). For example, perceived behavioral control directly affected the behavior documented in a hunting behavior study (Hrubes, Ajzen, & Daigle, 2001). The developers of the theory also discussed potential effects of demographic factors on human behavior. According to their theory, demographic factors do not affect the behavioral intention and the actual behavior directly but rather indirectly through the attitude, subjective norm, and perceived behavioral control. In other words, variances of these three psychological factors reflect variances of demographic factors. Thus, in predicting human behavior, demographic variables do not need to be included in the model (Ajzen & Fishbein, 1980).

In this study, we applied the theory of planned behavior in the credit counseling context and used it to identify factors that affect both the behavioral intention and the actual behavior of clients who enrolled in a DMP. We developed the following hypotheses:

- Hypothesis 1. The favorable attitude toward completing a DMP is positively associated with the intention to perform this behavior.
- Hypothesis 2. The subjective norm regarding completing a DMP is positively associated with the intention to perform this behavior.
- Hypothesis 3. The perceived ease of completing a DMP is positively associated with the intention to perform this behavior.
- Hypothesis 4. The intention to complete a DMP is positively associated with the actual behavior.
- Hypothesis 5. The perceived ease of completing a DMP is positively associated with the actual behavior.

### ***Consumer Satisfaction***

The theory of planned behavior has been widely used in many subject areas. When it is applied in different contexts, researchers commonly add other relevant factors that may influence the target behavior. For example, in

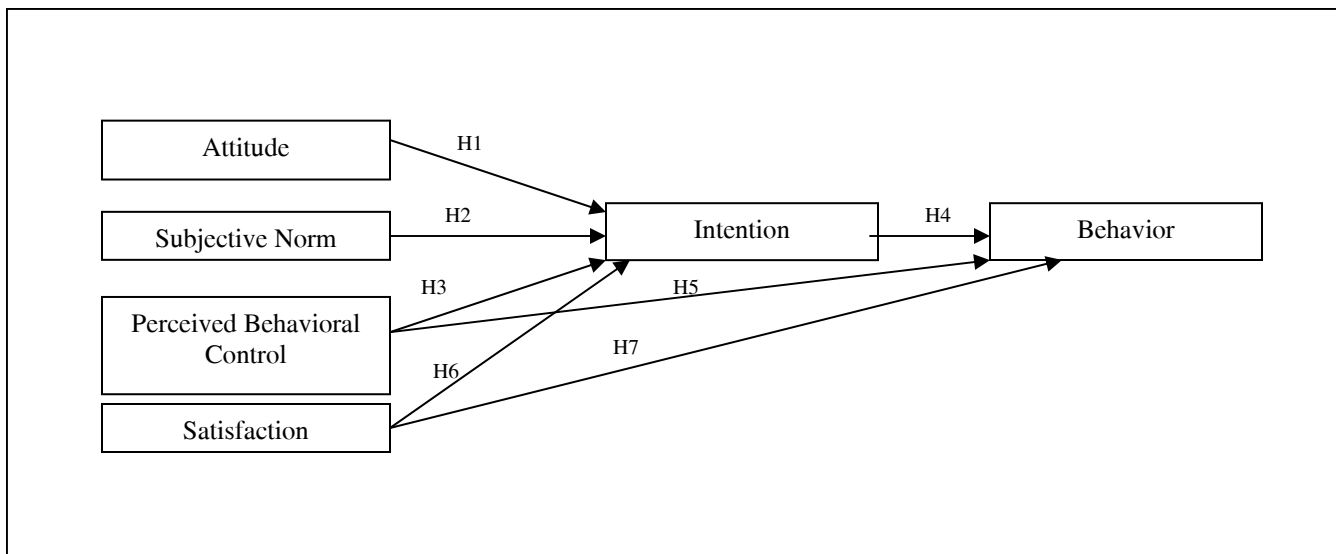
the previously mentioned study on hunting behavior, the researchers incorporated two additional factors in the model: the wildlife value and the general life value (Hrubes et al., 2001). In the current study, since credit counseling is a type of consumer service, we reviewed relevant literature in service marketing. Based on the literature review, we found that satisfaction was an important factor for consumers in deciding to continue with a service and to complete the use of a service.

From a business perspective, completing a DMP lies in the arena of customer retention. Customer retention is increasingly recognized as a significant managerial issue, especially in the context of a saturated market or lower new consumer growth (Ahmad & Buttle, 2002). Consumer satisfaction has been associated with such behavioral intentions as spreading positive word of mouth, being loyal, spending more time with the company, and paying price premiums (Cronin, Brady, & Hult, 2000). Consumer satisfaction leads to consumer retention which then leads to a business's profitability (Anderson & Mittal, 2000). A meta-analysis of empirical research showed that consumer satisfaction positively affects repurchasing (Szymanski & Henard, 2001). However, the relationship between satisfaction and retention is not straightforward and many empirical studies found a weak direct relationship between the two concepts (Hennig-Thurau & Klee, 1997). As summarized by Verhoef (2003), the relationship between consumer satisfaction and loyalty or retention could be mediated or moderated by other variables and may change over time. Hennig-Thurau and Klee (1997) developed a conceptual model to identify mediating variables between satisfaction and retention.

According to the literature, consumer satisfaction is an important factor in customer retention, particularly within service contexts. Satisfaction may be directly associated with customer retention or indirectly associated through mediating variables. In the context of credit counseling, if consumers are more satisfied with the service provided by a DMP, they should be more likely to complete the plan. Thus, the arguments above lead to the following two hypotheses:

- Hypothesis 6. The satisfaction with the service is positively associated with the intention to complete a DMP.
- Hypothesis 7. The satisfaction with the service is positively associated with the actual behavior of completing a DMP.

**Figure 2. The Extended Model**



*Note.* Each of all arrows indicates a positive association.

Based on the above discussion, we proposed an extended conceptual model by adding the factor of consumer satisfaction to the theory of planned behavior (see Figure 2). According to the theory of planned behavior (Ajzen, 1991), three variables, attitude, subjective norm, and perceived behavioral control, could explain behavioral intention, and behavioral intention and perceived behavioral control could explain behavior. In the proposed extended conceptual model, we hypothesized that consumer satisfaction would contribute to both behavioral intention and actual behavior.

## Method

### Data

We developed a questionnaire based on the theory of planned behavior and the literature on consumer satisfaction. With assistance of a national credit counseling agency, we pretested the questionnaire with six clients of DMPs to improve its readability. Data collection had two steps. First, we recruited clients enrolling in a DMP administered by a national credit counseling agency. The agency issued a recruiting announcement to its clients in their monthly statements, and 356 clients who were interested in the survey contacted us via telephone, email, or fax with their contact information. We sent out only 326 surveys because 29 clients provided incomplete contact information. The questionnaires were sent between November 2005 and February 2006 via email to those with an email address or by postal mail to those without an

email address. After submitting a completed survey, respondents received \$10 for their participation. The second step of data collection occurred 3 months after the survey. With the assistance of the credit counseling agency, we received participants' plan completion status data and matched the survey data with the status data. This technique allowed us to measure the actual DMP completion behavior of the consumers who participated in the survey. The total number of surveys we received was 210, with an overall response rate of 64% (210/326). The response rates varied by types of contacts. Fifty out of the 88 clients receiving the mail survey replied, achieving a response rate of 57%; 160 out of the 238 clients receiving the email survey responded, achieving a response rate of 67%. Twenty observations had missing values in psychological variables and were excluded, resulting in a sample of 190 used in data analyses.

Table 1 presents frequency distributions of the sample. The majority of respondents were female (72%), white (79%), married (53%), and worked full-time (69%). About one third held a college degree (36%) and had a family income of \$30,000-\$49,999 (33%). About one fourth had a household size of one or two (25% and 26%, respectively). Distributions of the three age groups (i.e., < 35, 35 – 50, > 50) were similar. We conducted Chi-square tests to examine any demographic differences between the participants who responded online and those responding by postal mail. Differences for age, education,

**Table 1. Descriptive Statistics of the Sample (N = 175)**

Variables	%
Total sample	100
Account Status	
Dropped	11
Inactive	11
Active	63
Completed	15
Gender	
Male	28
Female	72
Age	
< 35	32
35 - 50	38
> 50	30
Race	
White	79
Non-White	21
Education	
High school or lower	17
Some college	21
College	36
Advanced degree	26
Income	
Less than \$19,999	11
\$20,000 to \$29,999	7
\$30,000 to \$49,999	33
\$50,000 to \$69,999	21
\$70,000 to \$89,999	17
\$90,000 or higher	11
Household Size	
1 person	25
2 people	26
3 people	20
4 people	19
More than 5 people	10
Marital Status	
Married	53
Not married, but living with a partner	9
Never married	19
Separated/divorced	14
Widowed	6
Job Status	
Full time	69
Part time	11
Unemployed but looking for a job	6
Not working (students, retired, etc.)	14

*Note.* This study used a sample of 190 respondents. However, 15 respondents did not report information for demographic questions. The above table was calculated based on those who provided complete demographic information.

and income were found. Consumers who were younger, more highly educated, and had a higher income were more likely to use the online survey available.

To examine possible demographic differences between the study sample and the client population of the credit counseling agency from which the sample was drawn, we asked the agency for demographic data of their clients. The agency provided gender and age data of their clients. Among their clients, 40.4% were male, 59.2% were female, while 0.4% did not report their gender. The age distribution of the clients was: 16.4% were 37 or younger, 13.1% were 38-49, 17.3% were 50 or older, and 53.2% did not report their age. Thus, our sample was overrepresented by females and underrepresented by married and full-time workers. However, representation of age groups was difficult to estimate since over half of the clients did not report their age to the agency. We discussed these issues with an executive of the agency. He stated that compared to their client base our sample were overrepresented by females, and underrepresented by married and full-time workers. Other demographic categories had characteristics similar to those of the agency's client population.

#### **Variables**

**Behavior.** Information about the target behavior, DMP completion, was provided by the cooperating agency 3 months after the survey. The account number was used to match the survey and status data. Using information provided by the agency, the DMP completion behavior was coded into four categories: a) consumers who completed the program, b) consumers who were active, c) consumers who were inactive, including those whose payment had been late more than twice (called "retention" by the agency) or who had been sent to retention twice, and d) consumers who dropped out of the program with or without requests from the clients. In the sample used for data analyses, 15% of the respondents completed the plan, 63% were active, 11% were inactive, and 11% dropped out of the plan.

**Intention.** Intention, attitude, subjective norm, and perceived behavioral control were variables specified in the theory of planned behavior (Ajzen, 1991). These variables were developed by following the guidelines and suggested wording provided by the theory developers (Ajzen & Fishbein, 1980, Ajzen, 1991). Two 7-point bipolar adjective scales were used to assess participants' intention to complete the DMP. On the first scale, respondents indicated their intention to stay in the DMP to reduce debt

(1 - extremely weak to 7 - extremely strong). On the second scale, respondents indicated whether or not they intended to stay in the DMP (1 - extremely unlikely to 7 - extremely likely) (Pearson Correlation = .71,  $p < .0001$ ).

**Attitude.** Attitude toward the DMP completion behavior was addressed by asking respondents to evaluate staying in the DMP on two 7-point scales with endpoints coded and labeled 1 - extremely bad to 7 - extremely good and 1 - extremely foolish to 7 - extremely wise (Pearson Correlation = .59,  $p < .0001$ ).

**Subjective Norm.** Respondents indicated the extent to which they thought their families and close friends encouraged them to stay in the DMP, using three 7-point scales (1 - extremely unlikely to 7 - extremely likely) (Pearson Correlation = .61,  $p < .0001$ ).

**Perceived Behavioral Control.** Two 7-point scales were used to measure perceived behavioral control by asking respondents to rate the difficulty of staying in the DMP (1 - extremely difficult to 7 - extremely easy) and the truth of the statement, "If I wanted to, I could easily stay in the DMP" (1 - extremely false to 7 - extremely true) (Pearson Correlation = .64,  $p < .0001$ ).

**Satisfaction.** Two 7-point scales measured satisfaction with the DMP. One scale asked participants to respond to the statement, "I am satisfied with the DMP's service" (1 - extremely disagree to 7 - extremely agree). The second measure asked respondents to rate their relationship with the DMP (1 - extremely bad to 7 - extremely good) (Pearson Correlation = .83,  $p < .0001$ ). Satisfaction variables were developed based on the literature (e.g., Hennig-Thurau & Klee, 1997; Szymanski & Henard, 2001).

Following the practice of previous studies (e.g., Hrubec, et al., 2001) for each of the measures except behavior, we used the score as the average of the two indicators. The items used for the intention, attitude, subjective norm, perceived behavioral control, and satisfaction and their descriptive statistics are located in the appendices.

### Data Analyses

As preliminary examinations, we conducted two sets of ANOVA to verify potential correlates of the behavior intention and the actual behavior as suggested by the theory and literature. Then, we conducted multivariate analyses to test the hypotheses. Based on the conceptual

model presented previously, the purpose of data analyses was to examine if the actual behavior was influenced by several independent and mediator variables. In particular, we wanted to determine if the client intention was the mediator variable. We used a procedure described by Baron and Kenny (1986) and tested if all independent variables had direct or indirect effects on the dependent variable (i.e., the actual behavior of completing a DMP). In this study, we used the following models:

Model 1: Intention =  $f_1$  (attitude, subjective norm, perceived behavioral control, satisfaction);

Model 2: Behavior =  $f_2$  (attitude, subjective norm, perceived behavioral control, satisfaction);

Model 3: Behavior =  $f_3$  (attitude, subjective norm, perceived behavioral control, satisfaction, intention).

Model 1 was used to test H1, H2, H3, and H6. Models 2 and 3 were used to test H4, H5, and H7. The procedure suggested by Baron and Kenny (1986) had three steps. First, if the intention variable was the mediator, other independent variables should show associations with it (Model 1). Second, other independent variables without the intention variable should show associations with the outcome variable (i.e., the DMP completion variable) (Model 2). Third, the intention variable, entered as an additional independent variable, should have a larger effect than other independent variables on the behavior variable (Model 3). Because the behavior variable was an ordinal measure, the cumulative logit model was appropriate for estimations of Models 2 and 3 (Allison, 2001). For consistency, we applied the same procedure to Model 1. We recoded the intention variable in Model 1 by combining several categories that had fewer observations. The adjusted intention variable was an ordinal variable that had four categories ranging from 1 to 4, in which 1 indicated the lowest level of intention and 4 the highest level of intention. The coding of the new variable was 1 if the original intention variable, INTENTION = 1-5.5; 2 if INTENTION = 6; 3 if INTENTION = 6.5; and 4 if INTENTION = 7. The distribution of the new intention variable was: 1 - 11%; 2 - 11%; 3 - 12%; 4 - 66%.

### Findings

Table 2 presents results of the ANOVA between the behavioral intention and its potential correlates. The attitude, perceived behavioral control, and satisfaction were positively associated with behavioral intention, but the subjective norm was not. Table 3 presents results of ANOVA between the DMP completion behavior and its potential



**Table 2. ANOVA Results: Behavioral Intention (1-least likely to complete, 4-most likely to complete) (N = 190)**

	Total sample	1	2	3	4
Attitudes	6.39	5.52	6.07	5.98	6.68*
Subjective norm	4.80	4.21	4.91	4.96	4.86
Perceived behavioral control	5.24	3.84	4.69	4.85	5.65*
Satisfaction with the service	6.26	5.48	5.50	6.02	6.58*

*Note.* The scores of items in the table are based on 7-point scales. A higher score reflects a more positive attitude, more desirable subjective norm, more perceived behavioral control, and greater satisfaction. The behavioral intention variable was recoded with four categories, in which 1 indicated least likely and 4 indicated most likely to complete the DMP.

\*  $p < .001$ .

correlates. All potential independent variables except for the subjective norm were positively associated with the behavior variable.

Table 4 presents the results of cumulative logit models. In Model 1, when the dependent variable was the intention, two independent variables, the attitude and perceived behavioral control, showed significant effects, satisfaction showed a modest effect ( $p < .0788$ ); the subjective norm showed no significant effect. These results supported H1 and H3, modestly supported H6, and rejected H2. The results imply that each one-level increase in favorable attitudes towards completing a DMP doubles the odds of having a higher level of intention to complete the plan (odds ratio = 2.056). In other words, clients with more favorable attitudes towards completing a DMP were more likely to express intention to complete the plan. Clients who perceived greater ease of plan completion were also more likely to indicate an intention to complete the plan (odds ratio = 1.497). Clients who expressed greater satisfaction with the DMP were somewhat more likely to

intend to complete the plan (odds ratio = 1.351). In Model 2, when the dependent variable was the DMP completion behavior, only the perceived behavioral control showed a significant effect while the attitude had a modest effect. In Model 3, when the dependent variable was still the behavior and one more independent variable, the intention, was added, only the intention variable had a significant effect, while the perceived behavioral control variable showed a modest effect. Summarizing the findings of Models 2 and 3 and applying the criteria proposed by Baron and Kenny (1986), the findings supported H4, modestly supported H5, and rejected H7. The findings suggest that clients who expressed a stronger intention to complete the DMP were more likely to complete it (odds ratio = 1.579). Clients who perceived it to be easier to complete the plan were somewhat more likely to complete the plan (odds ratio = 1.217). Figure 3 summarizes the results of these models, in which the attitude, perceived behavioral control, and satisfaction (modestly) affected behavioral intention, and intention and perceived behavioral control (modestly) in turn affected the behavior.

**Table 3. ANOVA Results: Actual Behavior (N = 190)**

	Total sample	Dropped	Inactive	Active	Completed
Attitudes	6.39	5.98	6.05	6.46	6.62*
Subjective norm	4.80	4.58	4.74	4.90	4.59
Perceived behavioral control	5.24	4.33	4.93	5.30	5.81**
Satisfaction with the service	6.26	5.63	6.02	6.39	6.36*
Behavioral intention	6.51	5.33	6.50	6.70	6.55***

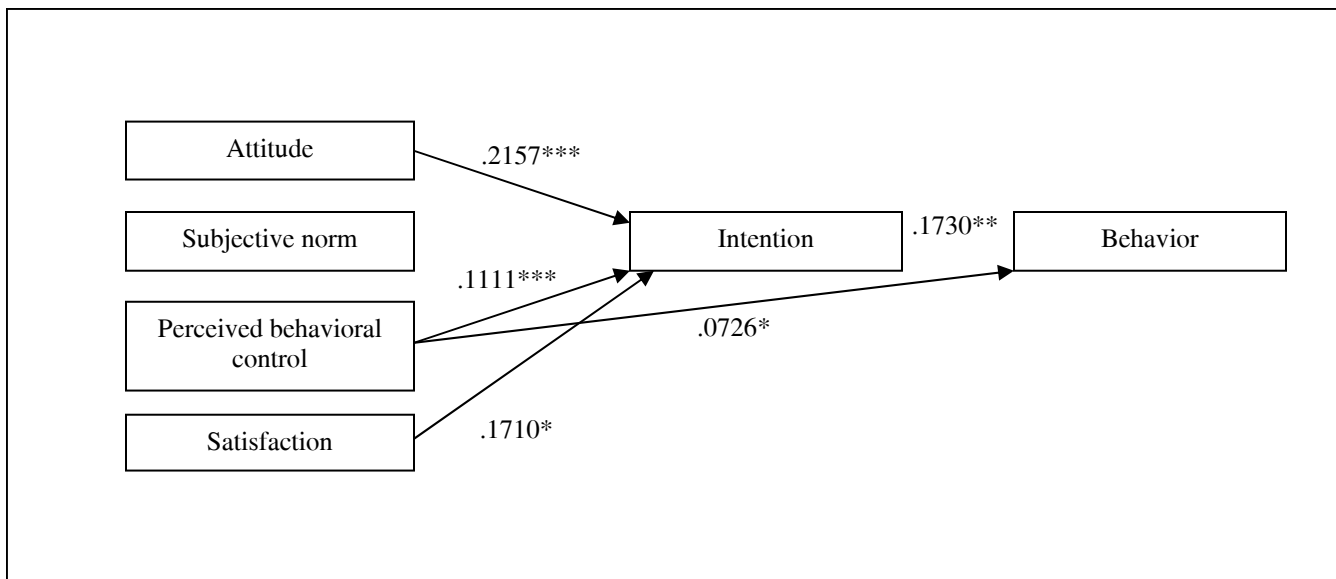
*Note.* The scores of items in the table are based on 7-point scales. A higher score reflects a more positive attitude, more desirable subjective norm, more perceived behavioral control, greater satisfaction, and higher level of intention to complete the DMP.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Table 4. Results of Cumulative Logit Models (N = 190)**

Variable	Parameter estimate	Standard error	Pr >  t	Odds ratio
<b>Model 1: Dependent variable = Intention</b>				
Intercept 4	-7.3845	1.2992	< .0001	
Intercept 3	-6.5588	1.2707	< .0001	
Intercept 2	-5.5331	1.2384	< .0001	
Attitude toward the behavior	0.7207	0.2157	0.0008	2.056
Subjective norm	-0.1030	0.1408	0.4644	0.902
Perceived behavioral control	0.4036	0.1111	0.0003	1.497
Satisfaction	0.3006	0.171	0.0788	1.351
<i>R-Square = 0.2677</i>				
<i>Percent Concordant = 77.8</i>				
<i>Likelihood Ratio Chi-Square = 59.2052, p &lt; 0.0001</i>				
<b>Model 2: Dependent variable = Behavior</b>				
Intercept 4	-5.6688	1.1898	< .0001	
Intercept 3	-2.4446	1.1224	0.0294	
Intercept 2	-1.5404	1.1158	0.1674	
Attitude toward the behavior	0.3572	0.2027	0.0781	1.429
Subjective norm	-0.0953	0.1193	0.4246	0.909
Perceived behavioral control	0.2516	0.1066	0.0183	1.286
Satisfaction	0.1096	0.163	0.5016	1.116
<i>R-Square = 0.0871</i>				
<i>Percent Concordant = 65.5</i>				
<i>Likelihood Ratio Chi-Square = 17.3159, p = 0.0017</i>				
<b>Model 3: Dependent variable = Behavior</b>				
Intercept 4	-7.1508	1.3126	< .0001	
Intercept 3	-3.8948	1.243	0.0017	
Intercept 2	-2.9278	1.2252	0.0169	
Attitude toward the behavior	0.2350	0.2168	0.2784	1.265
Subjective norm	-0.1148	0.1206	0.3411	0.892
Perceived behavioral control	0.1967	0.1096	0.0726	1.217
Satisfaction	0.0502	0.1679	0.7651	1.051
Intention	0.4566	0.173	0.0083	1.579
<i>R-Square = 0.1157</i>				
<i>Percent Concordant = 65.3</i>				
<i>Likelihood Ratio Chi-Square = 23.3635, p = 0.0003</i>				

**Figure 3. The Extended Model: Results**



Note. Numbers are estimated coefficients of logit regressions.

\*  $p < .1$ . \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

### Discussion

The study applied the theory of planned behavior (Ajzen, 1991) to the behavior of DMP completion in credit counseling. The findings suggest that the theory is helpful in identifying psychological factors, such as the attitude toward the behavior, perceived behavioral control, and behavioral intention, associated with the target behavior. Consistent with the prediction of the theory, the attitude and perceived behavioral control affected the actual behavior indirectly through the behavioral intention, and the behavioral intention affected the actual behavior directly. In addition, the perceived behavioral control showed modest effect on the actual behavior directly, a finding also predicted by the theory. In the theory of planned behavior, the perceived behavioral control represents two factors; one represents the volitional control and the other can be considered as a proxy for other external factors that affect the actual behavior (Ajzen, 1991). In this case, the perceived behavioral control significantly contributed to the behavioral intention and also showed a limited direct effect on the behavior, suggesting that both factors may work in this context in some way. Clients in credit counseling are usually financially constrained by heavy debts. However, some credit counselors may budget some “fun money” for their clients, allowing the clients some flexibility with their spending and potentially enhancing their perceived behavioral control over their finances.

One particular factor, the subjective norm, did not show a significant effect in the current study. This finding contradicts the predictions of the theory but is consistent with the results of many empirical studies applying the theory of planned behavior (see a review by Xiao, 2008). In the current study, questions regarding the subjective norm were related to social support. We asked whether family members and friends encouraged the respondents to stay in a DMP. However, if carrying credit card debt is generally considered a socially undesirable behavior, consumers might not even disclose participation in a DMP in order to avoid indirectly disclosing a significant debt problem, thereby diminishing if not negating the possibility of social support. This is evidenced by a low mean score of the subjective norm. Future research needs to be conducted to determine if the subjective norm contributes to the DMP completion behavior and if so, how to better measure this factor.

In the current study, one factor, consumer satisfaction, was added to the conceptual model. This addition was based on the literature in service marketing. The findings, however, provided limited support for including this factor. In the marketing literature, customer satisfaction is an important factor that contributes to customer retention (e.g., Anderson & Mittal, 2000). In this study, while consumer satisfaction showed a modest direct effect on the behavior

intention, it showed no direct effect on the actual behavior; this finding is consistent with the marketing literature which found that satisfaction affected retention through mediating variables. Future research is needed to determine if consumer satisfaction is a factor in predicting DMP completion behavior.

Three limitations of the study need to be acknowledged. First, the study sample drawn solely from one credit counseling company may not represent the population of DMP users in the whole industry. The second limitation relates to potential self-selection biases. There may be differences between respondents and those who did not respond to the survey. To gain insight into this potential bias, we compared early and later survey respondents regarding their actual behavior and found no differences between them. In addition, females were overrepresented in the client population of the agency used in this study, which leads to the question of whether or not gender differences exist regarding DMP completion behavior. Even though we conducted additional cumulative logit regressions by adding demographic variables including gender as an independent variable, none of the demographic variables showed significant effects (results are available upon request). The finding is consistent with the predictions of the theory of planned behavior (see the discussion in the hypotheses section). The third limitation lies in the fact that we only used two items to measure each of the psychological factors under consideration. Even though some published studies also used two items for each of the factors specified by the theory of planned behavior (Hrubes et al., 2001), future research should consider using three to five items for each factor to obtain more reliable and valid measures. Applying this approach would permit greater flexibility in selecting the best indicators among them, as well as enable researchers to use advanced analytical techniques such as structural equation modeling. Moreover, when using items borrowed from previous studies, attention must be paid to ensure that the wording in the questionnaire is appropriate for the context of the study.

### **Conclusion and Implications**

We used a unique data set that combines survey and plan completion status data of a sample of clients from a national credit counseling agency. We then applied an extended conceptual model suggested by the theory of planned behavior and the literature on consumer satisfaction as a guiding framework to examine factors associated with the client's behavioral intention and the actual behav-

ior of completing a DMP. Our findings indicate that the factors specified by the theory of planned behavior (i.e., the attitude toward the behavior and perceived behavioral control) had positive effects on the behavioral intention. In addition, the factor, satisfaction with the service, had a modest positive effect on the behavioral intention. However, the subjective norm showed no effect on the behavioral intention. In addition, only the behavioral intention and perceived behavioral control (modestly) were associated with DMP completion behavior, findings consistent with the predictions of the theory of planned behavior. The current study tested the usefulness of the theory of planned behavior in predicting the DMP completion behavior. The theory may be applied to other consumer financial behaviors as well. In addition, the findings have implications for consumer credit counselors, educators, and researchers.

### ***Implications for Credit Counselors***

***Use behavioral intention to predict the behavior.*** DMPs provide a major source of revenue for many credit counseling agencies. The ability to accurately predict the DMP completion behavior would help these agencies not only to enhance their financial stability but also to benefit their long-term planning. The findings support the validity of the theory of planned behavior, in which the behavioral intention is considered the most important predictor of the plan completion behavior. To better predict and monitor the completion behavior of their clients, counselors could routinely collect client intention information. Counselors may consider asking a few intention-related questions whenever they interact with their clients and also keeping a good record of the information. The information may be used for accurately predicting the plan completion behavior.

***Foster positive attitudes towards the DMP completion.*** The research findings indicate that the attitude toward completing a DMP plays an important role in determining the clients' behavioral intention. If a client decides to enroll in a DMP, the counselor should provide sufficient information to the client to engender positive attitudes toward completing the plan. Note that the positive attitude should focus on completing the plan rather than on the plan itself, which is the major advance made by the theory of planned behavior compared to other less effective attitude-behavior theories. For example, the question that needs to be asked is "What do you think about completing the debt management plan?" instead of "What do you think about the debt management plan?" Each credit counseling agency usually has its own comparative advantages. Counselors should

showcase their advantages and highlight their competitive edges to help consumers form a favorable attitude when they decide to enroll in a DMP. Counselors need to fully inform their clients of both the advantages and disadvantages of completing a DMP. Full information disclosure would likely increase positive attitude formation and would likely maintain the good reputation of the agency.

***Raise clients' perceived behavioral control ability.*** Counselors also need to provide clients with resources and information and help them increase their confidence in their ability to fight their debt problems. Many strategies could be developed to help clients feel confident and competent in the process of completing the DMP. For example, monthly charts could be used to show clients the progress made each month. Web sites could also be created to allow clients to check their progress anytime, anywhere. Positive encouragement needs to be provided whenever counselors interact with their clients. If clients felt more in control of their debt problem in the course of following a DMP, they might develop a greater intention to complete the plan thereby resulting in a greater likelihood of actual plan completion.

***Improve client satisfaction.*** A client's overall satisfaction with the services provided by a credit counseling agency may improve the client's intention to complete a DMP. Counselors should treat their clients respectfully and assure them that they are primarily working on the behalf of the clients instead of just collecting service fees from them. Clients will have different situations and needs. The counselors need to identify these special situations and provide targeted services to best meet these needs. The counselors should not only meet such needs but also provide even more assistance beyond clients' expectations in order to generate greater client satisfaction. Some evidence from this study shows that clients' greater satisfaction with the service would result in their greater intention to complete the plan. This in turn would increase the likelihood of actual DMP completion, thus benefiting the client, counselor, and creditor.

#### ***Implications for Financial Educators***

***Use the theory of planned behavior as a guide to develop effective education programs.*** The findings suggest that two factors specified in the theory of planned behavior, the attitude toward the behavior and perceived behavioral control, may play an important role in determining clients' behavioral intention. In turn, behavioral intention significantly helps determine the target behavior. In addition,

clients' perceived behavioral control directly affects the actual behavior to certain degrees. When educators develop education programs to encourage positive behavior development, they may consider adding content that focuses on the attitude toward the target behavior as well as the perceived behavioral control. To develop a positive behavior towards plan completion, education programs need to make the benefits and positive consequences of the DMP explicitly clear to consumers. When consumers understand these benefits and consequences better, they might form a more favorable attitude toward a DMP when they enroll. The education programs also need to provide practical strategies to help consumers reduce any psychological barriers they may have when deciding whether they want to enroll in a DMP. Financial educators could discuss potential psychological barriers in their classes and could offer practical strategies to reduce such barriers through interactive discussion among educators and students. The literature suggests many practical and effective financial education strategies which could be borrowed and applied in the context of credit counseling and DMP completion (Fox, Bartholomae, & Lee, 2005; Hilgert, Hogarth, & Beverly, 2003; Lyons, Palmer, Jayaratne, & Scherpf, 2006; Xiao, O'Neill, Prochaska, Kerbal, Brennan, & Bristow, 2004).

***Provide consumers information that allows them to choose appropriate services.*** The findings suggest that consumer satisfaction may have some effect on the DMP completion behavior. In addition to the service providers, consumer choices determine consumer satisfaction. To experience greater satisfaction when enrolling in a DMP, consumers need to find a DMP best suited to their needs. Equally important, financial educators need to provide information regarding industry and service options and provide search and selecting strategies for consumers. When consumers have more knowledge about the service options and characteristics of various plans, they can choose the most appropriate plan to meet their specific needs, thereby increasing their satisfaction with the plan. Financial educators may also offer consumers various strategies on how to effectively deal with service providers and encourage them to promptly complain if they experience problems in completing the plan. Educating consumers on how to avoid potential marketing scams is also needed in order to help consumers reduce dissatisfaction with using a DMP. A consumer who is well informed may be better able to choose a plan best suited to his or her situation and thereby potentially experience greater satisfaction.

### ***Implications for Future Research***

This study applied the theory of planned behavior (Ajzen, 1991) to a specific financial behavior: completing a DMP in credit counseling. To better predict consumer financial behavior, a theory is important since it would identify important factors associated with the target behavior. While various theories have been used or proposed for use, the need to develop new theories in order to address important issues in the context of personal finance remains (see a summary in Schuchardt et al., 2007). To enhance the theory development in this field, researchers could apply the theory of planned behavior and other behavior theories to better understand, predict, and modify consumer financial behaviors. Based on many studies that apply various behavior theories to financial behaviors in a variety of contexts, new theories that accurately predict consumer financial behaviors might emerge.

According to our experience in using this theory, two issues requiring future research clearly emerge. One is the effect of the subjective norm. In this study, the subjective norm did not show significant association with behavioral intention. According to a review of studies using the theory, the subjective norm is a weak predictor of intention, and some researchers suggest that alternative categorizations are needed, such as moral and descriptive norms (Armitage & Conner, 2001; Xiao, 2008). To effectively use the theory of planned behavior to better predict and understand consumer DMP completion behavior, we may also need to consider additional factors. In this study, we investigated client satisfaction which showed a modest effect. Future research is needed in order to further determine if client satisfaction affects plan completion behavior. Another important issue to consider in effectively applying the theory of planned behavior would be to use at least five items for each of the factors specified in the theory. Using additional items would give researchers greater flexibility in selecting the best indicators to measure the factors and enable them to conduct more advanced statistical techniques such as structural equation modeling. Such advanced statistical techniques would enable researchers to achieve more sophisticated statistical results.

Completing the DMP in credit counseling can also be examined from other perspectives—help-seeking behavior, for example. Joo and Grable (2001) examined factors associated with help-seeking behavior in retirement planning. Their approach could be applied to research on DMP completion in credit counseling in order to identify additional factors not addressed in this study.

In addition, to better understand consumer DMP completion behavior, data collected from more than one agency is needed in future research. Credit counseling agencies are diverse in their scopes and services (Hunt, 2005). Using data from nationally representative samples instead of samples from one or several agencies would more accurately describe consumer behavior in this context.

Finally, an important issue requiring consideration is the potential self-selection bias. Most clients in credit counseling are debt-trapped and stressed out by heavy debts and other adverse life events; recruiting them to participate in research might be a significant challenge. Some evidence from this study shows that the respondents are those who are more likely than non-respondents to complete the DMP. In future research, effort needs to be exerted to develop approaches to reaching non-respondents and to evaluating potential impacts of non-responses on research findings.

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## Appendix

**Table A1. Items Used in the Survey and Coding**

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### *Intention*

My intention to staying DMP to reduce debt is:

7-Strong \_\_\_\_\_ 1-Weak  
extremely quite slightly neither slightly quite extremely

I will stay in DMP to reduce my debt till it ends.

7-Likely \_\_\_\_\_ 1-Unlikely  
extremely quite slightly neither slightly quite extremely

### *Attitude*

My being in the Debt Management Plan (DMP) to reduce debt is:

7-Good \_\_\_\_\_ 1-Bad  
extremely quite slightly neither slightly quite extremely

My being in DMP to reduce debt is:

7-Wise \_\_\_\_\_ 1-Foolish  
extremely quite slightly neither slightly quite extremely

### *Subjective norm*

Most members of my family think I should be in DMP to reduce debt.

7-Likely \_\_\_\_\_ 1-Unlikely  
extremely quite slightly neither slightly quite extremely

My close friends think I should be in DMP to reduce debt.

7-Likely \_\_\_\_\_ 1-Unlikely  
extremely quite slightly neither slightly quite extremely

### *Perceived behavioral control*

Please rate the difficulty of staying in DMP.

1-Difficult \_\_\_\_\_ 7-Easy  
extremely quite slightly neither slightly quite extremely

If I wanted to, I could easily stay in DMP.

1-False \_\_\_\_\_ 7-True  
extremely quite slightly neither slightly quite extremely

### *Satisfaction*

I am satisfied with DMP's service.

7-Agree \_\_\_\_\_ 1-Disagree  
extremely quite slightly neither slightly quite extremely

I rate my relationship with DMP as \_\_\_\_\_.

7-Good \_\_\_\_\_ 1-Bad  
extremely quite slightly neither slightly quite extremely

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*Note.* The coding numbers are added to the survey for expository purposes. In the original survey, no coding numbers are shown.

**Table A2. Descriptive Statistics of Measures of Major Variables (N = 190)**

	M (SD)	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)
<b>Intention</b>								
My intention to staying DMP to reduce debt.	6.4 (1.07)	0	2.1	0.5	4.2	7.4	17.4	68.2
I will stay in DMP to reduce my debt till it ends.	6.6 (1.12)	2.6	0.5	0	1.1	2.6	13.1	80.0
<b>Attitude</b>								
My being in the Debt Management Plan (DMP) to reduce debt is:	6.3 (1.17)	0.5	3.2	1.1	2.1	5.8	30.5	56.8
My being in DMP to reduce debt is:	6.5	0	1.5	0	2.1	7.4	26.8	63.2
<b>Subjective norm</b>								
Most members of my family think I should be in DMP to reduce debt.	5.0 (1.47)	2.1	3.7	2.1	38.4	11.6	22.1	20.0
My close friends think I should be in DMP to reduce debt.	4.6 (1.46)	4.2	3.7	2.6	49.0	10.0	18.4	12.1
<b>Perceived behavioral control</b>								
Please rate the difficulty of staying in DMP.	5.0 (1.79)	1.6	9.0	20.5	5.3	9.5	30.0	24.2
If I wanted to, I could easily stay in DMP.	5.5 (1.56)	2.6	3.7	5.8	13.0	11.6	32.2	30.5
<b>Satisfaction</b>								
I am satisfied with DMP's service.	6.3 (1.20)	1.6	0	4.2	1.6	8.4	25.8	58.4
I rate my relationship with DMP as:	6.3 (1.04)	0.5	0.5	1.6	4.7	7.4	32.6	52.6