A Study of Materialism Level among Mid-Atlantic residents

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Introduction

Materialism, defined as a tendency to consider material possessions and physical comfort as more important than spiritual values, has long been the subject of study in many literatures (Oxford English Dictionary, 1989,Vol. 9, p. 466, as cited in Richins & Rudmin, 1994). Related studies range from consumer psychology to philosophy. From a broad perspective, materialism serves as the base of modern capitalism. As Max Weber (1930) suggests in his famous discussion of capitalism, the materialistic values influenced people to engage in work in a secular world, thus lead to the emergence of capitalism. On the other hand, as a wealth of literatures suggest, high level of materialism is associated with lower levels of subjective well-being (Ahuvia and Wong, 2002; Sirgy, 1998) and that a materialistic lifestyle harbors negative long term consequences for both individual consumers and society in general (Burroughs and Rindfleisch, 2002). Both positive and negative images have been associated with the idea of materialism.

From the perspective of consumer psychology, materialism is an especially interesting topic since materialism influences consumers' reasoning in evaluating their purchases. Several measurement scales of materialism have been offered by different scholars. Despite the differences in the actual measures, one common idea across them is that people with high materialistic level define happiness and success based on their worldly possessions. This set of values can potentially change a lot of ways people behave. As worldly possessions are mostly acquired through purchasing, it is reasonable to make a hypothesis that materialism correlates with some purchasing behaviors.

Based on its potential influences on purchasing behaviors, for-profit corporations rely on materialism to boost sales and increase profitability. The most direct way is to use advertisements and marketing campaigns to generate the influences on consumer's materialistic level. If the linkage between high level of materialism and desired purchasing habits, such as conspicuous consumption and impulse buying, truly exists, their goal of increasing sales shall be achieved in this process. Studying this aspect of the topic is of great importance in helping people further understand the human conditions related to materialism. It especially calls into question the effectiveness of the marketing strategy that solely relies on the materialism effect.

Researchers have also warned the public with the potential negative effects materialism produces. Credit overuse is one of the significant problems, which could lead to deteriorated credit ratings and accumulation of great amount of debt. The existing literatures emphasize the relationship between materialism and its effect on human behaviors. However, few have paid the attention to study the characteristics of the population who are more likely to develop higher level of materialism. In this paper, I investigate these potential characteristics. Meanwhile, this study would also shed light on the factors that could possibly decrease one's level of materialism. Social efforts could be made to protect the susceptible group from developing high levels of materialism and minimize the potential negative effects of materialism on the society as a whole.

In the following sections, I first review the past literatures on the topic of materialism. Based on those ideas, I hypothesize that demographic background can

influence one's materialistic level, and high level of materialism correlates with purchasing habits such as conspicuous consumption and impulse buying. In the analysis part, OLS regressions are conducted based on data from the Floyd survey. Further implications are derived and summarized in the conclusion section.

Literature Review

The history of the discussion on materialism dates back to the early days of human civilization. Even though the term itself did not emerge at that time, similar concepts and related discussion can be found in words and books written by philosophers in ancient India, Greece, and China. From a philosophical perspective, materialism conveys the same meaning as physicalism (Friedman, 1974). The discourse on the relationship between matter, substance, and reality laid the foundation for modern philosophy. As time goes by, the term "materialism" itself evolves. In today's society, when people refer to this word, they often emphasize on the economic meaning of the term, i.e. the desire of acquiring and consuming excessive amount of material goods (Belk, 1982). The positive aspect of this concept usually relates to pragmaticism based on the understanding of prudent capitalism. The pursuit of worldly possessions led to the initial capital accumulation, which enabled the development of capitalism later on (Weber, 1930). However, the negative aspect is often materialized by the image of extravagant spending.

This following literature review offers different views on how materialism affects human behaviors in the contexts of consumer psychology. Meanwhile it also summarizes the definition of materialism and the measurements of this term used in past research. I list several options of how to operationalize the concept of materialism

in this study. Based on the characteristics of each measurement and the availability of data, one of the methods is chosen to construct the variable of *materialism* in this study. In addition, this literature review lists some social factors that could affect one's materialistic level. The purpose of this section is to find some determinants of materialism that relate to one's demographic background, thus shed some light on who would be the group of people that are more susceptible to the materialistic values.

Influences of Materialism

Previous literature examined the influences of materialism on both individuals and society overall. It is generally regarded as a negative value system since it involves placing possessions and their acquisition at the center of life with a belief that acquiring more possessions leads to happiness (Podoshen and Andrzejewski, 2011). In the *Meaning, Measure & Morality of Materialism*, Ahuvia (1992) stated that being materialistic could lead to negative outcomes such as short term self indulgence, gluttonous pleasure and coercive power. To further specify the influences on individual's daily life from the perspective of consumer behavior, a number of researches point out that materialism is closely associated with conspicuous consumption (Podoshen and Andrzejewski, 2011), compulsive buying (Rindfleisch, Burroughs and Denton 1997; Roberts, Manolis and Tanner, 2003), social consumption motivation (Fitzmaurice and Comegys, 2006), social anxiety (Schroeder and Dugal, 1995), self-doubt and insecurity (Chang and Arkin, 2002).

As pointed out by previous research, conspicuous goods primarily satisfy the need of prestige (Grubb and Grathwohl, 1967), which is derived from audience reaction rather than the product itself (Wong, 1997). In other words, some consumers

in low power situations (Rucker and Galinsky, 2007) or those who feel a lack of self-worth (Sivanathan and Pettit, 2010) purchase certain conspicuous goods for the purpose of obtaining better social status. In other situations, conspicuous consumption is used to establish a discriminatory social system of classification (Veblen, 1902). It marks a superior social status that others who are less well off cannot obtain.

Studies have suggested that a strong link exits between free-spending materialism and conspicuous consumption. Among them, Tatzel (2002) proposes that the desire to consume is propelled by a belief that success is linked to consuming in a "showy, displaying manner (Tatzel, 2002)". If this proposition were proved to be true, its implication would be that as one's level of materialism becomes higher, he or she is more likely to engage in conspicuous consumption. The marketers who want to stimulate conspicuous consumption could exploit this finding by increasing consumer's level of materialism with various marketing techniques.

Meanwhile, studies also suggest an association between materialism and impulse buying. In this case impulse buying is often manifested in the form of "buy now pay later" (Podoshen, 2011). A survey of residents in Pennsylvania conducted by Watson (2003) shows that people with high materialism level are more likely to engage in purchasing luxury goods with borrowed money. Tatzel (2002) also suggests that materialistic consumers tend to exhibit both a positive attitude towards debt and a positive attitude towards impulsive purchases. Richins' (2011) findings further indicate that transformation expectation (an expectation that the possessions would transform his or her life into a better state) might explain the positive relationship between materialism and credit overuse.

If this linkage were also supported by quantitative study and proved to be true, marketers can again exploit this relationship in order to increase consumption. The American society today holds a positive view towards "buy now pay later". This phenomenon may be explained by the proposition that as people's materialistic level increases, they are more welcoming towards the idea of impulse buying.

Definition

As the term "materialism" evolves into its modern interpretation, several studies have offered different versions of definition and measurement for this term. After indirectly examining their validity based on how widely used these measurements are, I found out that there exists three widely accepted and frequently cited definitions of materialism. Among them, both Belk(1982) and Richins(1994) define materialism from the perspective of consumer psychology; while Inglehart (1989) defines materialism from the perspective of political sociology. In the following paragraphs, I examine the three proposed measurements in more detail.

Belk's Materialism

Initially, Belk viewed materialism as a collection of three personality traits: possessiveness, nongenerosity, and envy (Belk, 1982). In his opinion, by analyzing these aspects of a person, we can determine his or her level of materialism. Later on, he added the fourth trait of preservation in the subsequent study of cross-cultural studies on the scale of materialism (Ger & Belk, 1996). Through his research, he concludes that these traits are closely associated with the strong satisfaction and dissatisfaction derived directly or indirectly from worldly possessions.

The first measurement, possessiveness, is defined as "the inclination and tendency to retain control or ownership of one's possession (Belk, 1982)." It is distinct from acquisitiveness, as the latter is perceived as a relationship with objects before and during acquisition rather than a relationship with objects after acquisition. People with this trait always prefer greater control of objects or "tangibilization" of any experience.

The second measure, nongenerosity, is manifested through one's unwillingness to share his or her possessions with others. This measure is different from the first one in the sense that some people could score high in the second measure but low in the first measure or vice versa. An example would be a child who has a strong desire of owning a toy but who would be willing to share it with other children at the same time.

The third measure, envy, is defined as an interpersonal attitude involving "displeasure and ill-will at the superiority of (another person) in happiness, success, reputation, or the possession of anything desirable" (Schoeck, 1966). In other words, success and happiness are solely derived from owning certain goods. Moreover, a sense of superiority is associated with the ownership. From a materialistic person's perspective, a social hierarchy is established strictly based on the level of wealth.

By presenting questions related to the three measurements to subjects, Belk measures the reliability, convergent validity, discriminant validity, and criterion validity. With sufficient confidence in both reliability and validity, he concludes that the three scales prove to be a reliable measurement for materialism in social science research.

Richins' Materialism

A different theory of thought championed by Richins perceives materialism as a

system of personal values instead of personality traits (Richins, 1994a, 1994b; Richins & Dawson, 1992). The differences between personal values and personality traits have been well discussed in the field of psychology. Olver and Mooradian (2002) point out that, based on accumulated evidence, personality traits are largely *endogenous characteristics*, which mean they are determined by nature. On the other hand, personal values are largely *learned adaptations* strongly influenced by the environment. Thus, in Richins' opinion, one's level of materialism can be affected by various life experiences. In addition, it also implies that the level of materialism can fluctuate over time. Moreover, as values are generally divided into two types: personal and social, Richins puts materialism into the personal value category. The scales that she proposes include three aspects: success, happiness, and centrality.

The first aspect, success, refers to the tendency that possession is often used as a direct indicator of success. This measure captures how people treat worldly possessions as something to show off their superior social status. The second factor, centrality, refers to the general importance that people attach to their worldly possessions. It implies that people with high level of materialism usually treat acquiring worldly possessions as the central part of their lifetime goal. The third aspect, happiness, measures whether one feels happier by owning the right possessions. In other words, worldly possessions are the source where the large part of happiness comes from.

In order to assess the validity of the scale, Richins tests the measurement against four propositions suggested by theorists: materialistic people value acquisition and the means to acquire possessions more highly, they dislike voluntary simplicity,

they are self-centered and unconcerned about others, and they are constantly dissatisfied (1992). After testing the new measurement against the four propositions, significant relationships are observed under all propositions. Thus, Richins concludes that the personal value materialism scales are proved to be reliable and valid (1992).

Compared to the measurement proposed by Belk, Richins' materialism centers around the influences brought by worldly possessions instead of the intrinsic characteristics such as someone's level of generosity. Thus, it is reasonable to assume that different amount of wealth and different life experiences can bring about disparate materialistic level. Even though the two measurements of materialism are both well supported in academia, the latter one leaves more room for further research on what factors can influence one's materialistic level, which is the topic of this study.

Inglehart's Materialism

Another widely accepted measurement of materialism is proposed by Inglehart, a political sociologist. Instead of using a consumer psychology perspective, he sees materialism as "a chronic focus on lower order needs for material comfort and physical safety over higher order needs such as self-expression, belonging, aesthetic satisfaction, and quality of life" (Inglehart, 1989). This interpretation focuses on comparing the importance of economic activities to that of other activities.

His definition of materialism also agrees with the notion that materialists are characterized by putting more emphasis on worldly possession than on spiritual matters (Oxford English Dictionary, 1989,Vol. 9, p. 466, as cited in Richins & Rudmin,1994). From the perspective of political sociology, Inglehart measures one's level of materialism by examining one's social values. If one gives priority to economic

growth, low crime rates, and a strong national defense as important social values, one's materialism level is determined to be high. On the other hand, if one values higher order social values such as freedom of speech more than lower order needs, one's materialism level is determined to be low. In other words, Inglehart's materialism is characterized by the superior status of economic activities.

This approach exceeds the boundaries of consumer psychology compared to the two theories proposed by Richins and Belk. Thus, even though it is one of the most well accepted measurements of materialism, it is not appropriate for this study, as the available data mainly gather information regarding people's mentality towards consumption. Nevertheless, it is still interesting to see the interpretations of materialism from different perspectives. In future studies, this measurement can be used if appropriate data are available. And it would be interesting to compare the results to that of this study.

The Determinants of Materialism

As Richins' definition of materialism suggests, materialism is a personal value that could be influenced by environment. Different life experiences and socioeconomic conditions may lead to very different materialistic scores. Thus, it would be useful to explore what these determinants are.

A number of literatures on materialism address gender differences that could possibly lead to different materialistic levels. In some cross-culture studies conducted by Eastman and Kamineni (1997), results show that males tend to place more emphasis on achieving success with worldly possessions. However, the difference is quite subtle and complicated. In the case of durable goods such as cars, men are much

more disposed towards conspicuous consumption than women (Bloch, 1981). Nevertheless, in the market of high fashion clothing, women are more prone to conspicuous consumption than men, and they use apparel more often than males to show status and construct identity (O'Cass, 2001). These results are consistent with the gender differences that men value independence and activity, while women are more emotionally and relationship oriented (Dittmar, 1989).

To put materialism into a broader social context, Chang and Arkin (2002) examined materialism as an attempt to cope with uncertainty. The study and its results suggest that one's level of materialism correlates highly with the extent to which a state of self-doubt or social anomie exits (Chang and Arkin, 2002). The concept of social anomie was first introduced by Émile Durkheim (1897) in his famous sociological discourse of suicide. It means a state that is extremely uncertain and devoid of any existing social norms. Thus, Chang and Arkin conclude that within an environment with high levels of uncertainty, people are more likely to become high materialists. An explanation behind this assumption is that anomie and self-doubt prompt the tendency to define success based on material assets (Chang and Arkin, 2002). When someone lives with an attitude that judge success solely based on worldly possessions, he or she is said to be materialistic as suggested by definitions from both Belk and Richins. Situations such as earning low income and being minority would possibly lead to uncertainty. In other words, low income or minority groups might have higher materialistic level compared to the others. This may contradict to the common assumption that higher income leads to higher level of materialism. Thus, it would be interesting to see the actual effect of income on materialism.

Based on the findings above, Roberts and Manolis (2003) further argue that family structure is closely related to materialistic level. As people from divorced families face higher level of uncertainty and insecurity, they are more likely to "view material possessions as a mean of achieving happiness" (Roberts and Manolis, 2003). However, rather than increasing the security level, this pursuit may even deepen the feeling of insecurity in the long run (Kasser, 2002) and cause social anxiety (Schroeder and Dugal, 1995).

Therefore, it would be interesting to examine the above factors as determinants of materialistic level. However, because of the constraint of using secondary data, this study cannot restructure the questionnaire and make it specifically correspond to every issue raised by past literatures. Thus, using the demographic information of the respondents as predictors of materialism is the best option as far as this study concerns.

Hypotheses

Based on the literature above, I propose the following hypotheses for this study:

H1: One's level of materialism can be affected by gender, income, race, and married status.

H2: One's level of materialism significantly correlates with conspicuous consumption.

H3: One's level of materialism significantly correlates with impulse buying habits.

The first hypothesis aims at determining certain factors that could influence one's materialistic level. The second and third hypotheses are the main hypotheses for

this study. The purpose is to see if high materialistic level facilitates conspicuous consumption and impulse buying habits. Thus, the dependent variables are going to be conspicuous consumption and impulse buying; the main independent variable is one's materialistic level. If the demographic information does not show up significant for the first hypothesis, they will be included as control variables for the second and third hypotheses. In the following sections, the three hypotheses will be quantitatively tested based on the survey data described as following.

Data Description

The data used in this study is a survey provided by the Floyd Institute, a non-profit opinion research center in Lancaster, Pennsylvania. The original study was conducted from May through July of 2009. The Floyd Institute surveyed residents across Pennsylvania via telephone. The process was voluntary, and the respondents were not compensated through the study. A few incomplete cases were removed via listwise deletion for the purpose producing a complete dataset. In sum, 538 (313 female) completed surveys were used after the deletion.

The original Floyd survey included (or collected) a large number of variables. Demographic variables include age, education level, marital status, income, racial background, religion identification, work status, etc. Other than demographic information, the Floyd survey collected opinions concerning two main areas: politics and consumption. Because of the specific topic of this thesis, I solely focus on the consumption part of the Floyd survey.

Certain questions in this section include “do you agree it is important to know if the brands you purchase makes good impression”, “do you agree it is fun to make unplanned purchases” etc. All the questions are on a close-ended scale such that the respondents choose one of the following responses to a proposed statement: strongly agree, somewhat agree, somewhat disagree, strongly disagree, neither agree nor disagree, do not know, and refused. Leaving out “do not know” and “refused”, we can construct an ordinal scale that ranges from strongly disagree to strongly agree. Thus a five-level scale can be used to assess the response for each question.

Because of the pros and cons for each measurement of materialism that are discussed in the literature review section, I choose Richins’ measurement, which centers on success, centrality, and happiness (1994). Based on this measurement, I select nine variables that concern attitudes towards consumption to form a latent variable that measures one’s level of materialism. With similar method, I separately construct latent variables for impulse buying and conspicuous consumption using certain questions from the survey. Finally, some demographic variables are also included as control variables in the model. The variables are discussed in detail in the following section.

Independent Variable:

As mentioned in the literature review, there are three widely-accepted measures to assess one’s materialistic level: Belk’s personality traits scale, Richins’ material value scale, and Inglehart’s scale from the perspective of political sociology. Because this study uses secondary instead of primary data, the choice of the appropriate scale largely depends on the angle of the survey questions. This study

chooses to use Richins' material value scale (Success, Centrality, and Happiness) as the most appropriate measurement for its purposes because the survey questions primarily assess respondents' values. Moreover, personality traits are fixed by nature, while personal value can vary according to different environment. Only Richins' material value scale allows me to study what might be the factors that influence one's materialistic level. This is another advantage of using this measurement.

The present study adopts nine questions that pertain to the aspects of success, centrality, and happiness taken from the value scale proposed by Richins (three questions for each aspect). The nine questions together assess the respondent's level of materialism, the independent variable that is central to this study. An example of the selected questions is "Whether one agrees that he admires people who own expensive things". The complete list of the nine original questions can be found in the Appendix section.

Each three questions focus on success, centrality, and happy, which correspond to the scale proposed by Richins. Because all the observed variables range from 1 to 5, it is not necessary to standardize them. By averaging the three questions under each category, I obtain three distinctive variables of (success), (centrality), and (happy). Since they are used to construct the latent variable of materialism, it is necessary to make sure that they measure things in the same direction. A chronbachs alpha test shows that the scale reliability coefficient is 0.6 among the three variables. In other words, it guarantees that (success), (centrality), and (happy) measure materialism in the same direction. Thus, it is viable to construct a latent variable by applying a coefficient of 1/3 before each observed variable and summing them up. Because no

literature has ever mentioned that any aspect is more important than the other two, it is reasonable to assume that success, centrality, and happy should weigh equally under this scheme. This method ensures that the three aspects receive equal weight and the value range of the latent variable remains the same as the observed variables. Thus, we obtain a variable of *materialism* that ranges from 1 to 5. I label them as levels of not at all, a little, neutral, somewhat, and a lot.

Dependent Variables:

The dependent variables concern attitude towards conspicuous consumption and impulse buying habits. As literatures have suggested, high level of materialism can potentially facilitate both of them. Thus, for the first dependent variable, *conspicuous consumption*, I select three questions from the survey that relate to one's attitude towards conspicuous consumption. Using the similar method for *materialism*, I average the answers to the three questions to obtain a new variable of *conspicuous consumption*. An alpha test of 0.72 makes this move viable. Similarly, three questions pertains one's attitude towards impulse buying habits are selected and used to construct the variable of *impulse buying*. The alpha test result is 0.75, indicating the three questions measure impulse buying in the same direction. The complete question list used to construct these variables can be found in the Appendix section.

Demographic Variables

Because of the uniqueness of this study, demographic variables are treated as independent variables in the first hypothesis. The corresponding dependent variable is materialism level. If they do not explain much variance of materialism in the first

model, demographic variables will be included as control variables in verifying the second and third hypotheses.

Data Descriptive

Using the method described in the paragraphs above, I construct a latent variable based on three aspects: success, happy, and centrality. The constructed variable, (material), has 991 observations. It ranges from 1 to 5, with a mean of 2.7 and a standard deviation of 0.9.

Meanwhile, the dependent variables, levels of conspicuous consumption and impulse buying, are constructed in a similar manner. With three questions pertaining people's attitude towards impulse buying and four questions measuring level of conspicuous consumption, I average the questions under each category to obtain two distinct variables (impulse) and (conspicuous). The variable of impulse buying ranges from 1 to 5. It has 594 observations, with a mean of 3.3 and a standard deviation of 1.1. The variable of conspicuous consumption also ranges from 1 to 5. It has 1000 observations, with a mean of 2.7 and a standard deviation of 0.88.

Table 1. Descriptive Table of Independent and Dependent Variables

	Materialism	Conspicuous Consumption	Impulse Buying
N	991	1000	594
Mean	2.76	2.67	3.4
(St. dev)	(0.9)	(0.88)	(1.1)
Range	(1,5)	(1,5)	(1,5)

T-tests are significance tests that indicate whether two groups are significantly different from one another (Singleton and Straits, 2005). The t-test table shows great

significance between materialism and the two variables. It means that people who are materialistic have significantly different scores of conspicuous consumption and impulse buying than people who are not materialistic. It indirectly suggests that a significant relationship might exist between the two dependent variables and materialistic level.

Table 2.T-test of Dependent Variables by Materialism	
Conspicuous Consumption	0.49*** (9.4)
Impulse Buying	0.43*** (5.0)
N	991
t statistics in parentheses * p<0.05, **p<0.01, ***p<0.001	

As mentioned above, demographic information is also an important part of the analysis. A list of demographic variables includes income, education, race, marital status, gender, religiosity, and political ideology. Please see the appendix for the data descriptive based on the original coding (Table 8). And the following table summarizes these variables based on the way they were originally coded.

Table 3. Demographic Characteristics Associated with Materialism

	Not at all	A little	Neutral	Somewhat	A lot
Gender (%)					
Female	6.9	28.5	46.3	16.5	1.8
Male	9.3	30.2	39.5	18.5	2.5
Income (%)					
Under $25(thousand)	2.1	22.7	38.1	29.9	7.2
$25-$35,0	2.7	21.8	51.8	20.9	2.8
$35-50,00	8.8	27.4	42.9	17.6	3.3

$50-75,00	7	25.6	44.2	21.7	1.5
$75-100,0	1.7	25	60	13.3	0
Over $100	5.5	24.2	60.4	8.8	1.1
Education (%)					
No High School	6.3	21.9	40.6	25.0	6.3
High School	2.2	19.3	45.2	28.1	5.2
Some College	3.8	17.3	48.1	26.9	3.8
Two-year College	0	10.8	67.6	18.9	2.7
Four-year College	4.6	28.4	50.5	14.7	1.8
Post-Graduate	3.7	23.2	64.6	8.5	0.0
Race (%)					
White	8.9	28.7	45.3	15.4	1.7
Black	5.0	29.4	36.1	26.1	3.4
Asian	6.5	37.0	21.7	30.4	4.3
Other	5.4	30.4	44.6	16.1	3.6
Marital Status (%)					
Single	10.2	34.0	36.4	17.4	1.9
Married	6.6	28.1	52.4	11.5	1.4
Other	2.4	9.8	50.4	33.3	4.1
Religiosity (%)					
Protestant	1.1	24.9	54.1	18.4	1.6
Catholic	4.3	17.9	55.0	21.4	1.4
Other	1.7	10.0	55.0	23.3	10.0
Non-affiliated	9.7	30.6	35.5	19.4	4.8
Political Ideology (%)					
Liberal	2.8	24.5	46.2	22.6	3.8
Moderate	2.4	23.1	52.7	17.2	4.7
Conservative	4.7	18.0	54.7	21.5	1.2

Among the demographic variables, income, education, and political ideology are ordinal. Gender is binary. Race, marital status, and religiosity are categorical variables. In order to make them fit the analysis better. I recode the variables as binary ones based on the literature review. As past literatures suggest, uncertain feeling and incomplete family structures both correlated with high level of materialism. Thus, I

recode the race variable as white versus nonwhite (combine the black, Asian, and other categories). The reasoning behind is that nonwhite groups are generally more marginalized than the white group. Similarly, I recode the martial status as married versus unmarried (combine single and other). It is because neither single nor other group has a complete family structure. In addition, the religiosity variable is recoded as religious (combine protestant, catholic, and other) versus secular, since the differences between religions are beyond the scope of this study. I leave the other variables in the way they are naturally coded.

The following table shows significance tests of the sample population divided into two groups by key independent and control variables.

Table 4.T-test of demographic variables by Materialism	
Gender	-0.053 (-1.67)
Age	-6.699*** (-5.2)
Education	0.540*** (3.3)
Income	0.385** (2.75)
Race	0.0182 (0.68)
Marital Status	0.0365 (1.15)
Religiosity	-0.0907** (-2.68)
Political Ideology	-0.0972 (-1.27)
N	991
t statistics in parentheses * p<0.05, **p<0.01, ***p<0.001	

Results suggest that significant demographic differences exit between people with high level of materialism and people with low level of materialism. Among the variables, age, education, income, and religiosity show statistical significance. For the age variable, materialistic group are generally older than the unmaterialistic group. Meanwhile, the materialistic group also has less years of education than the unmaterialistic group. The income variable is less significant than the previous two. Similarly, the materialistic group generally earns less income than the unmaterialistic group. In addition, the materialistic group shows high level of religiosity than the unmaterialistic group. This is a surprising finding because being religious usually means valuing worldly possessions less. Nevertheless, because the original survey question was simply identifying respondent's affiliated religion, it is possible that even people who put down their affiliated religion do not actually practice them. Instead, a question that asks how often does one go to religious service might generate different results.

The t-test tables have already shown some interesting findings. Since materialism is treated as a binary variable here, variances are significantly reduced. When the actual regression is conducted, it would be interesting to see if the variables actually have significant influences on someone's level of materialism.

Methodology

Because of the uniqueness of this study, the analysis will be divided into two parts. The first part focuses on finding some demographic determinants of one's materialistic level. The second part aims at determining if there is significant

correlation between materialistic level and consumer purchasing habits. Thus, for the first part of the analysis, I use the OLS regression model that reveals both magnitude and significance of the influences of demographic variables on materialism. This model provides information on the impact of an independent variable on the dependent variable while simultaneously controlling for the effects of other independent variables (Singleton and Straits, 1999). The simplicity of an OLS model makes the results easy to interpret. Meanwhile, the influences of each demographic variable can be clearly shown with other effects being controlled. In this model, materialistic level, the latent variable, is the dependent variable; demographic information would serve as independent variables. Details regarding the results of the regression will be presented in the results section.

In order to test the hypotheses regarding the relationship between high level of materialism and consumer purchasing habits, I would also use the OLS regression models for the same reasons stated in the paragraph above. In this model, level of materialism is the independent variable (material); level of agreement towards impulse buying (impulse) and conspicuous consumption (conspicuous) are the independent variables. Meanwhile, if the demographic information variables do not explain large part of the variances of materialistic level, they would be added into the model as control variables since past literatures have suggested possible influences.

Results

To test the first hypothesis, I run the regression with materialistic level and demographic information.

Table 5. OLS Regression Predicting High Level of Materialism with Demographic Variables	
	OLS Model
Gender	0.053 (0.7)
Age	-0.003 (-1.30)
Education	-0.05* (-2.01)
Income	-0.052 (-1.87)
Race	-0.49*** (-3.84)
Marital Status	-0.30*** (-3.62)
Religiosity	0.273* (2.48)
Political Ideology	-0.03 (0.55)
N	447
t statistics in parentheses * p<0.05, **p<0.01, ***p<0.001	

The table above shows the coefficients associated with demographic variables including gender, age, education, income, race, marital status, religiosity, and political ideology. Among them, education, race, marital status, and religiosity show some level of significance, whereas others do not.

For the variable of education, the associated coefficient is -0.05. It means that the more educated one person is, the less likely that he or she would have a high materialistic level. Because the education variable was not originally coded as the number of years one received, I cannot assess the impact of having one more year of education on one's level of materialism. The p value equals 0.045, which shows marginal significance. This result is consistent with what one would expect based on

the definition of materialism. As one receives more education, it is possible that he or she would judge success based on things other than worldly possessions. Thus, more education can possibly lead to lower materialistic level. On the other hand, this relationship does not show strong significance. It might take further research to verify the exact impact.

For the variable of race and marital status, the results show consistency with the literature review. As past literatures have suggested, one's level of materialism correlates with the extent to which a state of self-doubt or social anomie exits (Chang and Arkin, 2002). Hence, it is reasonable to see results that non-white group has higher average materialistic level than white group; and unmarried people have higher average materialistic level than married people. The coefficient associated with the race variable is -0.49, which means that being white instead of non-white will reduce one's materialistic level by 0.49, based on a five-level scale, net of other effects. The coefficient associated with the variable of marital status is -0.30, which means that being married instead of unmarried will reduce one's materialistic level of 0.30, net of other effects. These results are found based on the assumption that being nonwhite and unmarried would increase life uncertainty.

On the other hand, the religiosity variable shows marginal significance, and the direction of influence is very surprising: being religious lead to higher level of materialism. As mentioned above, this might be caused by the fact that people were identifying their affiliated religion instead of reporting the level of religiosity. Thus, the result might be distorted. Further research can be done regarding the relationship between religiosity and materialism.

Other variables did not show up as significant. Income is one of them. And the direction is influence is that higher income could lead to lower level of materialism. This result might be surprising, as people would think that high level of income indicates greater purchasing power. Nevertheless, materialism is not measured based on how much people purchase. Rather, it is a set of personal values that are not necessarily associated closely with the amount of worldly possession one owns. On the contrary, it is reasonable to conceive that one would value worldly possession even more highly because he or she lacks the way to accessing them. The adjusted R-sq is about 0.1245, which means that 12.45% of variance of materialistic level can be explained by the demographic information. This is does not allow me to make any causality conclusion. There exists omitted variable bias. Thus, in the following models, I still include demographic information as control variables.

The models suggest that there are statistically significant linkages between materialism and purchasing habits (both conspicuous consumption and impulse buying). The coefficient associated with materialism in the first model is 0.24, suggesting that one level increase of one's materialism will lead to 0.24 level of increase of his or her tendency of engaging conspicuous consumption, net of other effects.

Table 6. OLS Regression Predicting High Level of Conspicuous Consumption

	OLS Model
Material	0.24*** (5.45)
Gender	-0.29 (-0.42)
Age	0.0003

	(0.15)
Education	-0.027 (-1.18)
Income	0.021 (0.83)
Race	-0.216 (-1.80)
Marital Status	-0.207 (-2.65)
Religiosity	-0.077 (-0.76)
Ideology	-0.074 (-1.59)
N	443
t statistics in parentheses * p<0.05, **p<0.01, ***p<0.001	

Similarly, the coefficient associated with materialism in the second model 0.193, suggesting that one level increase of one's materialism will lead to 0.193 level of increase if one's tendency of buying impulsively, net of other effects.

Table 7. OLS Regression Predicting High Level of Impulse Buying	
	OLS Model
Material	0.193** (2.96)
Gender	0.219 (2.16)
Age	-0.003 (-1.10)
Education	-0.10 (-0.30)
Income	-0.0006 (-0.02)
Race	-0.25 (-1.43)
Marital Status	-0.085 (-0.75)
Religiosity	0.165 (1.11)
Ideology	0.037

	(0.55)
N	443
t statistics in parentheses * p<0.05, **p<0.01, ***p<0.001	

The p values suggest quite strong significance, especially for the correlation between materialism and conspicuous consumption. The control variables were included because they have the potential of influencing one's purchasing habits. However, the results turned out that no strong correlation exist among them. As a result, both hypotheses that one's level of materialism significantly correlates with conspicuous consumption and impulse buying are supported.

Discussion

The analysis above has suggested that one's level of materialism correlates with different demographic backgrounds. A few of the variables that show significance in the regression model are education, race, and marital status. While other variables such as age, gender, income, and ideology did not show significance. This result corresponds to the ideas suggested by past literatures that uncertain and unstable life situations would lead to higher materialistic level. In other words, the result implies that people from lower social economical background or people in unstable situations are more susceptible to the idea of materialism, i.e. treat worldly possessions as a direct indicator of success, the source of happiness, and a very important part of life.

This conclusion might seem contradictory to a common idea that rich people purchase more luxury goods and are more likely to have higher materialistic level. However, based on the analysis, the statement above might be resulted from the

misinterpretation of materialism. It is not a lifestyle or some spending habits. Rather, it is a mentality that values everything else against worldly possessions. To some degree, materialism is part of the fundamental perspective that defines how we perceive the world. Thus, having great purchasing power or actually buying lots of luxury goods does not necessarily correlates with high level of materialism. This also explains why income did not turn out to be one of the determinants of one's materialistic level.

As suggested by Chang and Arkin (2002), materialism is sometimes treated as a way to cope with uncertainty. When people are in a situation that they can only improve their social status and avoid to be marginalized by acquiring more wealth (non-whites in this case), they are more likely to adopt a materialistic mentality. Also, when uncertainty is prevalent in one's life and there is no other value he or she can rely on, an individual becomes welcome to the idea of materialism. Thus, these groups should be paid more attention, as they are especially susceptible to the materialistic values.

On the other hand, the second and third hypotheses found support from the data as well. The conclusion that can be drawn from the analysis is that high level of materialism is highly correlated with purchasing habits of conspicuous consumption and impulse buying. In other words, by increasing people's materialistic level, it is highly possible that we can create more positive attitudes toward conspicuous consumption and impulse buying among them. As a consequence, there is a greater possibility that these people will be engaged in actual conspicuous consumption and impulse buying.

Because of the availability of the data, there are several limitations about this study. The first one relates to finding the determinants of high level of materialism. By doing this, I want to find out the groups who are most susceptible to the materialistic values. However, since I use secondary data, the only variables that I can rely on are the basic demographic information. If I have had the chance of designing the survey myself, I would ask more specific questions regarding their personal value and immediate social environment.

Another limitation is that selectivity issues might be involved in this study. Respondents of the survey are limited to the residents in Pennsylvania. Region could have significant influences on a person's materialistic level. People in urban area tend to be more sensitive to products that convey certain value and social status, while people in rural area have less opportunity of being exposed to the same culture. Nevertheless, region (by states), as another potential independent variable, could not be addressed in this study because all respondents live in Pennsylvania. This fact might limit the external validity of the results. Generalization to other population based on this research should be made with cautious.

As mentioned above, this linkage between materialism and purchasing habits is extremely important for the marketers, because most of their advertisements and marketing campaigns rely on the assumption that linkages exist between materialism and various purchasing habits. Lots of advertisements and marketing campaigns use techniques to stimulate consumers' materialism. An example could be the use of mirror neurons, a neuron that allows people to feel the feeling just by observing the same action performed by others (Lindstrom 2008). Looking at the shapely mannequin

wearing trendy and perfectly cut clothes in boutiques, we tend to feel we could be as attractive as them once wearing the same clothes. They persuade us of such a transformation by showing us people who have apparently been transformed and are, as result, enviable. This is another way of preaching the consumers that owning the products will bring them beauty, success, and happiness. Even though this kind of marketing strategies might not generate immediate sales, repeating these ideas over and over again would make some consumers actually believe that owning certain goods, worldly possessions in other words, can truly bring beauty, success, and happiness. As a consequence, people are more likely to develop a higher materialistic level when surrounded by such advertisements.

Conclusion

As the results of this study suggest, the higher materialistic level generated by the marketing campaigns have a statistically significant correlation with purchasing habits such as conspicuous consumption and impulse buying. When people become more materialistic, they are more likely to actually engage in luxury and unplanned purchases. As suggested by the results, income might not even play an important role when the decisions are made. People with relatively low social status might be inclined to make these purchases as well because they believe buying the advertised goods will help them become successful and obtain higher social status as a result. Thus, marketers successfully stimulate excessive consumption and achieve their goal of increasing sales revenue. This can be an explanation why today's American economy relies more heavily on consumption than ever before.

However, lots of bad consequences associate with high materialistic level and the discussed purchasing habits. One of them is heavy credit use. As mentioned above in the literature review, the idea of "buy now pay later" has become extremely prevalent in the American society. While making purchases, people focus on the immediate benefits the goods can bring, not considering the following payments. Heavy credit use in the society overall has contributed to the meltdown of the housing market, financial crisis, building-up of trillions of U.S. national debt, etc. Thus more attention should be devoted to protecting the susceptible groups from developing higher materialistic level.

Appendix

Following are the original questions asked by the survey.

The first nine questions are selected based on Richin's materialism measurement: success, centrality, and happiness.

Success:

1. Whether one agrees that he admires people who own expensive things
2. Whether one agrees that one's possessions says how well he did in life
3. Whether one agrees that he like to own things to impress people

Centrality:

1. Whether one agrees that he tries to keep life simple
2. Whether one agrees that he usually buys things that give him pleasure
3. Whether one agrees that he like lots of luxury

Happiness:

1. Whether one agrees that his life would be better if he owns certain things
2. Whether one agrees that he would be happier if he could afford to buy more
3. Whether one agrees that it bothers him when he cannot afford to buy all things.

(Alpha test = 0.57)

The following three questions are questions selected to measure the level of conspicuous consumption.

1. Whether one agrees it's important to know what friends think about different brands before actually buying it.
2. Whether one agrees it's important to know the kinds of people who buy the brands.

3. Whether one agrees that it's important to know what other people think about it before buying it.
4. Whether one agrees that it's important to know if the brands make good impressions before buying them.

(Alpha test = 0.72)

The following three questions are questions selected to measure the level of impulse buying.

1. Whether one agrees with the idea of buying things that they had not intended to buy.
2. Whether one agrees that it's fund to buy spontaneously.
3. Whether one agrees that they often make unplanned purchases.

(Alpha test = 0.68)

Following is the descriptive table of the demographic variables based on their original coding.

Table 8. Descriptive Table of the Demographic Variables

	Mean	(St. dev)	Range
Gender	1.5	0.5	(1, 2)
Age	38.4	20.57	(16, 99)
Education	3.6	1.69	(1, 6)
Income	3.3	1.67	(1, 6)
Religiosity	1.9	1.04	(1, 4)
Political Ideology	2.1	0.77	(1,3)
Race	1.47	1.1	(1,3)
Marital Status	1.8	1.17	(1,3)

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