Abstract—Most prior researches of compulsive buying focused on compulsive purchase behavior offline. This paper, combining with the specific consumer culture in China, constructed and tested a model of psychological motives of compulsive buying online (CBO). The results confirmed previously documented point that materialistic value and psychological motives significantly affect compulsive buying tendency online (CBTO). Our extra findings were that: (1) materialistic value mediates the relationship between psychological motives and compulsive buying tendency online, (2) Psychological motives contain virtual experience motives other than emotional-related and identity-related motives. This paper is a new expansion of the study on psychological motives of compulsive buying and it provides some guiding significance for E-commerce practice.

Keywords—compulsive buying tendency online; psychological motives; materialistic value; model

I. INTRODUCTION

Internet addiction has been a choke point for the healthy development of E-commerce. According to ‘clinical diagnosis standard of internet addiction’, one of the five sorts of internet addiction is internet transaction addiction, which also can be called compulsive buying online (CBO). In China, the population of compulsive buyers online is enlarging due to the development of B2C and C2C website, e.g. Taobao. As Internet Addiction Data of Chinese Youths (2007) shows, 11.33% of the internet-addicted adolescents “usually” do shopping, pay bills and make trade-off online.

CBO usually results in severe financial and psychological burden due to continuing buying excessively. Also indulging in virtual environment for long make people lose the ability to feel the reality and the consciousness of actively participation in the real world, which leads to unhealthy psychological phenomenon, such as mutism, unsociability, indifference, stress, etc. In brief, CBO is a morbid behavior, so it will hinder the healthy development of E-commerce; CBO is an unsustainable behavior, so it will retard the sustainable development of E-commerce. Nowadays many scholars and doctors accuse such behavior. However, in order to deeply understand this behavior, scientific research is needed. Especially, some more evidences of the psychological motives for such behavior. There have been plenty of works on compulsive buying behavior (d’Astous, Julie and Caroline 1990[2]; Faber & O’Guinn, 1995), but most are on compulsive buying offline, few about those online. Dittmar (2007)[4] constructed a model to investigate the motives of CBO, and it successfully explained 55.6% of the variance in compulsive buying tendency online (CBTO). Through improving that model, maybe some more explanation can be found. Moreover, previous conclusions are all obtained abroad and none address Chinese compulsive buying behavior. Finally, new changes occur to CBO due to the development of internet. Therefore, this article examines the psychological motives of CBO in the context of China.

II. RELEVANT LITERATURE REVIEW AND HYPOTHESIS

A. Concept of compulsive buying and relevant researches

Researches about compulsive buying are abundant. Faber & O’Guinn (1989) defines compulsive buying as “chronic, repetitive purchasing that becomes a primary response to negative events or feelings and ultimately results in harmful consequences”. Their definition is comparatively authoritative and most widely accepted by academic circles. Elliott (1994) regards compulsive buying as a kind of compensatory behaviors aiming at identity seeking and mood regulation through purchasing products. Mitall (2008) holds that compulsive buying can be thought of as a chronic tendency to purchases products far in excess of a person’s needs and resources. In this paper we define compulsive buying as a kind of consumer behavior that excessively, long-term continuous, uncontrollably, addictively purchase products and services. Compulsive buying isn’t excessively purchasing one time, but for long term; it doesn’t mean impulsive purchasing on occasion, but repetitive and uncontrollable impulsive purchasing and has the trait of consumer mania. Further more, compulsive buying is addictive.

Compulsive buyers have some common characteristics: lower self-esteem (d’Astous, Julie and Caroline, 1990) [2], greater tendency to fantasize (DeSarbo, 1996), higher levels of anxiety (Scherhorn, 1990) and unhappy early family experience. Moreover, numerous studies showed that women compose the majority of compulsive buyers (O’Guinn & Faber, 1992) [1], and the compulsive buying tendency among the youth is even more significant (d’Astous, Julie and Caroline, 1990)[2]. Besides the traits above-mentioned, CBO also shares some common characteristics of internet addiction, such as vulnerable to tolerance, self-depressed, loss of interest, disorders of biological clock, reduction of social activities, fear of sociality, and disorder of self-control (Yie Xingdong, 2004). Compulsive buyers online also have the irresistible urge to buy products exceeding their demand from the internet regardless of the financial consequences. They do the whole process by network, repeatedly use Web browser to search commodities,
transaction information for long, and ultimately wallow in the interactive experience of online shopping.

There are many measurement scales of compulsive buying, among which the three most commonly used are: Vaience (1988) scale, Faber & O’Guinn (1992) [1] scale and Edwards (1993) [3] scale. Faber & O’Guinn scale is a seven-item Likert scale. It can identify 88% of the respondents and it is most popular in academic circles. However, it has an obvious limitation that it presents an overly restricted view of compulsive buying (Edwards, 1993) [3]. Edwards developed a more complete instrument through improving the Faber & O’Guinn scale. The Edwards scale can identify compulsive buyers to different degree, including the ones with compulsive desire to buy, the ones with strong post-purchase guilt and the ones with compulsive spend behavior. The Vaience scale is composed with three dimensions: a tendency to spend, feeling desire to buy, and virtue experience motives. Thus we construct the model of psychological motives of CBO in China, as is shown in the Fig. 1.

![Model of psychological motives of CBTO in China](image)

### B. Model for Psychological Motives of CBTO in China

CBO motives include functional, social and psychological motives (Parsons, 2002). Functional motives mainly pursue the functional value of products which aim at practicality, convenience, high performance-cost ratio, etc. Social motives mean satisfying interpersonal needs from buying. Psychological motives refer to the incentives to gain mental benefits. In this paper, we study psychological motives only. Primitively, compulsive buying is considered been used for mood repair and alleviation of anxiety and depression (Faber & Christenson, 1996), so psychological motives will doubtless affect compulsive buying tendency. Psychological motives of CBO include three aspects: emotional-related, identity-related and virtue experience motives. This conclusion is based on the following there considerations: (1) Primitively, compulsive buying is considered aiming at mood repair and alleviation of anxiety and depression (Faber & Christenson, 1996), so psychological motives will doubtless affect CBTO. (2) Concern about identity is regarded as the second important motive of compulsive buying (Wicklund, 1982); Dittmar (2007)[4] proposed that, besides emotional-related motives identity-related motives are also very important for CBO. (3) CBO is similar to compulsive buying offline. While psychological motives of compulsive buying offline include social experience motives, so we suppose those of CBO contain virtual experience motives correspondingly. Materialistic value was also approved to be a significant predictor of compulsive buying tendency (Faber & O’Guinn, 1992; Mick, 1996). Furthermore, generally speaking, motives regulate behavior through values, so suppose materialistic value moderates the link between psychological motives and compulsive buying tendency. Thus we construct the model of psychological motives of CBO in China, as is shown in the Fig. 1.

### C. Hypothesis

1) Psychological Motives
   a) Emotional-related motives
   Emotional-related motives include mood regulation (MR) and emotional enhancement (EE). MR refers to relaxing or getting rid of negative mood through consumption when someone is in bad mood, for example, shopping therapy. EE refers to further strengthening one’s emotion when he is good mood or excited, for instance, buying for enjoyment (Dittmar & Drury, 2000). We suppose that:
   
   H1: Emotional-related motives significantly affect CBTO.
   H1a: MR significantly affects CBTO.
   H1b: EE significantly affects CBTO.

   b) Identity-related Motives
   Identity-related motives presume that consumers expect to seek some individual or social identity through the process of purchasing or the acquisition of possessions. This kind of motive is more outstanding in contemporary consumer behavior (Dittmar, 2004). Identity-related motives contain three aspects: identity promotion (IP), identity express (IE), and collective identity (CI). IP represents promoting individuals’ social image and moving close to ideal-self. IE represents expressing oneself and showing personality. CI means that individuals in China, a society placing much stress on collectivism, seek collective identity and try to converge at collective commonness during consuming as a result of “mianzi” culture and collectivism. Thus:
   
   H2: Identity-related motives significantly affect CBTO.
   H2a: IP significantly affects CBTO.
   H2b: IE significantly affects CBTO.
   H2c: CI significantly affects CBTO.

   c) Virtual Experience Motives
   Previous researches on CBO didn’t take social experience motives into account because CBO lacks the real interpersonal communication (Dittmar, 2007)[4]. However, we believe that with the development of technology it’s necessary to cover experience motives when study psychological motives of CBO for the following reasons: Firstly, with the development of software, network multimedia environment technology, shopping online can obtain the sense of being personally on the scene. The goods display in online shopping mall becomes
more and more close to those in the entity stores, which makes
the shopping atmosphere online is nothing less than that of the
entity stores; consumers online can sometimes appreciate some
wonderful advertising. Secondly, there have been some
network platforms, such as “www.c2pop.com”, offering the
“electronic try-on system”, which offsets the lost opportunity
to contact with goods directly (e.g. try-on). Thirdly, buying online
can also have instant communication with the shopkeeper and
meantime share shopping experience with other consumers
through virtual communities.

Virtual experience motives contain three aspects: virtual
interpersonal experience (VIE), virtual good experience (VGE)
and virtual atmosphere (VAE). VIE represents the
communication between buyers and shopkeepers or other
consumers through virtual net communities, including web
forum, chat room, discussion group, network paging such as
TaobaoWangwang. VGE contains fitting “electronic clothes”
on through “electronic try-on system”, participating in
production design and products circulation, etc. VAE
represents some online scenes, the shopping atmosphere
heightened by online shopping mall, the sense of being
personally on the scene brought by the tridimensional goods
display and so on. Accordingly, we suppose as follows:

H3: Virtual experience motives significantly affect CBTO.
H3a: VIE significantly affects CBTO.
H3b: VGE significantly affects CBTO.
H3c: VAE significantly affects CBTO.

2) Materialistic Value

Ward & Wackman (1971) defines materialistic value as
“orientation emphasizing possessions and money for personal
happiness and social progress”. Belk (1984) describes
materialistic value as “the importance a consumer attaches to
worldly possessions”, He elaborates that at the highest levels of
materialistic value, possessions assume a central place in an
individual’s life, and are believed by the materialist to be a
means of providing satisfaction. Actually in one word,
materialistic value is the self-value based on possessions.

Materialistic value can be measured by scales and the two
most widely used are Belk’s (1985) and Richins & Dawson’s
(1990). Belk measured materialistic value from three facets:
possessiveness, non-generosity and envy. Richins’s measure of
materialistic value consisted of three aspects: acquisition
centrality, the role of acquisition in the pursuit of happiness,
and the role of possessions in defining success.

Materialistic value can bring psychological benefit (Kasser &
Kanner, 2004). Furthermore, materialistic value has the
similar negative correlates with compulsive buying, such lower
of self-esteem (Richins & Dewson, 1992), poorer psychosocial
adjustment (Black, 2004). Furthermore, numerous previous
researches confirmed that materialistic value is a significant
predictor of compulsive buying tendency (Dittmar 2005) [5].
value moderates the link between psychological motives and
CBTO. Accordingly, we propose that:

H4: Materialistic value significantly affects CBTO.

H5: Materialistic value moderates the relationship between
psychological motives and CBTO.

III. Method

A. Date Collections

We study the associations between materialistic values,
online buying motives, and compulsive buying tendencies
online from a sample of undergraduate, graduate students and
MBAs at Wuhan University, who took part in a “students as
consumers” study on a voluntary basis or in return for course
credit. We selected those who reported that they had bought
goods online at least once, yielding 114 respondents who had
finished their surveys.

B. Measures

The questionnaire contains four sections. The first section
was designed to assess CBTO. We use the modified
Compulsive Buying Scale (CBS ; d’Astous,1990), a
shortened version of the original scale developed by d’Astous
in 1988,one of the two most widely used questionnaire-based
measures of compulsive buying tendency (α=.717). The
second section consists of the revised MVS (Richins, 2004),
which assesses individual differences in materialistic value
endorsement (α=.703). The three buying motives were
measured by a set of items describing the consumers’ feelings
and opinions about buying goods online and is the third section
of the questionnaire (α=.731, .877, .679). The fourth section
contains two items about the responders’ gender and their
perceived relative income to their peers. A confirmatory factor
analysis (CFA) using structural equation modeling (SEM) was
carried out with stringent criteria. The model good fit indices
(114)=167.43, p<0.1;CFI=.91, RMSEA=.06). These findings
confirm that the same items assessed online buying dimensions
that formed separate constructs, replicating the findings that
identity gains, emotional enhancement and experimental
process are distinct online buying motives.
IV. Results and Discussion

A. Results

We examined possible predictors of CBTO by entering sets of variables stepwise in a multiple hierarchical regression analysis, with the increase in variance explained examined at each step. Gender (dummy-coded male = 0, female = 1) were entered (step 1), and then the perceived relative income to their peers (mean-centered, step 2). The three online buying motives—emotional enhancement, identity gains, and virtual experience motives were entered next (step 3). This was followed by 2-way interactions between gender and perceived relative income to their peers, and perceived relative income to their peers and buying dimensions at step 4, interaction between gender and buying dimensions at step 5, and 3-way interaction at step 6.

The addition of gender did not improve prediction (ΔF (2,114) = 1.22, ns). And perceived relative income to their peers also did not improve prediction (ΔF (1,114) = 1.48, ns). In contrast, and in support of our hypothesis, online buying motives added significantly to the explained variance in CBTO (ΔF (1,117) = 43.14, p < 0.001), and this addition was substantial: 54%.

B. Discussion

The results of our study provide evidence for compulsive buying tendencies online, thus supporting the existence of compulsive buying in the new context of internet. The distribution of scores on the CBS-online showed that mild tendencies are not uncommon, and 11% of youth students reported levels of compulsive buying tendencies that had dysfunctional elements. Also it is interesting to notice that, contrary to conventional compulsive buying, there were no gender differences in CBS-online scores.

The present findings suggest that social psychological predictors become more important for understanding compulsive buying tendencies online when internet penetration is high, especially emotional, identity-related, and virtual experience motives. Individuals appear motivated by self-improvement and self-repair in the sense that they are seeking enjoyment, mood regulation, self-expression, experiences, and moving to an identity ideal. Seeking to fulfill these motives through material goods seems central to current consumer culture, which encourages people to engage in “retail therapy” to improve their mood, sense of their self (e.g., Benson, 2000) and virtual experiences. Yet, these motives have negative consequences, because they emerged as strong, direct predictors of compulsive buying tendencies online.

The final, and central, analysis showed that the associations among the main variables were consistent with the proposed model. Thus, a materialistic value orientation was shown to be associated with compulsive buying (Dittmer, 2005b). The present research is the first to show that it also holds in the new buying environment of the internet. Moreover, making a novel contribution to research both on compulsive buying and materialistic values.

The present findings have clinical implications, because it seems likely that compulsive buying tendencies online can reach levels that evidence dysfunctional elements. Although the present research examined compulsive buying tendencies, rather than clinical compulsive buying online, there is suggestive evidence in our study that almost 11% of our young adults reported tendencies strong enough to indicate dysfunctional behavior. This figure is in line with estimates of two to 13% of adults in Western mass consumer societies who are clinical or subclinical compulsive buyers in conventional environments.

VI. Limitations and Future Research

As with all research, our study is constrained by limitations that suggest areas for further research. In terms of our sample, we were constrained by the quantity of the valid sample (n=114), this slightly affects our factorial analysis procedures and the fitness of our proposed model, besides the sample we collected are mostly young students within a limited district just from Wuhan University. Furthermore, the items concern the virtual experience are not detailed enough, so the inner consistence is below normal and needs further improvement. We encourage additional research that examines in wider district and the choice of the sample can be more targeted, the internet age of the customer also can be but in consideration. The model in our study can be further validated and improved in the future, we strongly encourage additional studies that investigate other new direct and moderating effects of relational characteristics.

REFERENCES