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Future Orientation Predicts BYOB (Bring Your Own Shopping Bags) Behavior Intention: The Mediation Effects of Perceived Importance and Ethical Judgement

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Abstract

More and more environmental pollution problems make sustainability development and green behavior receive an increasing amount of attention. Green behaviors are often characterized by sacrificing immediate costs to achieve future benefits. We studied on the relationship between time orientation and one of the typical and universal green behavior: bring your own shopping bags (BYOB). Both a unidimensional Consideration of Future Consequences Scale (CFCS) and a two factors CFCS (immediate orientation (CFC-Immediate) and future orientation(CFC-Future)) were used to measure time orientation. We found that future orientation (CFC-Future) could positively predict BYOB intention, but immediate orientation(CFC-Immediate) and future time orientation measured by unidimensional CFCS show no significant effect on BYOB intention. Also perceived importance of BYOB, ethical judgement of BYOB both have positive effects on BYOB intention. Moreover, the empirical result showed that perceived importance played a partial mediation role between future orientation(CFC-Future) and BYOB intention, ethical judgement played a partial mediation role between perceived importance and BYOB intention. A fuzzy-set qualitative comparative analysis (fsQCA) showed the combination of future orientation, perceived importance and ethical judgement played significant role in BYOB intention. In theoretical contribution, we underline the mechanism of future orientation(CFC-Future) on BYOB intention, and from the ethical concept of BYOB, we also found other antecedent for ethical judgement and behavior intention: perceived importance of the ethical issue. In practical implication, we can manipulate consumers' future orientation and perceived

importance of BYOB and to increase BYOB behavior in the real life.

Keywords

future orientation, bring your own shopping bags (BYOB), perceived importance, ethical judgement, fsQCA

1. Introduction

A scientific study has brought China's plastic waste problem to the attention again. In February 2015, scientists at the University of Georgia in the United States published papers in the famous journal *Science*. The article points out that about 8 million tons of plastic waste flows from the land into the ocean every year, and China is the largest source of dumping, accounting for nearly one-third of the total. It urges Chinese government to take more measures to reduce plastic pollution, such as bringing your own shopping bags (BYOB). Not only plastic pollution, more and more environmental pollution problems like this make sustainability and environment protection receive an increasing amount of attention, both within the corporate, consumer, and individual domain of behavior (Singh & Walker, 2024).

Engaging consumers in green behaviors (e.g., bringing one's own shopping bags) is a formidable challenge for policy makers and managers who seek for sustainable national or corporate development amidst continued ecological deterioration (Orams, 2015). Environmental behavior is related to time conflict, especially need us to think and behavior in the future mind. In our study, we concentrate on the time orientation, and test how time orientation influence green behavior (points to BYOB behavior in our research).

Time orientation (Nuttin, 2014), which means that time in the mind orients people in different directions: the present (present orientation), or the future (future orientation). And time orientation can be considered as a personality trait, usually measured by Consideration of Future Consequences Scale (Strathman et al, 1994). Past studies have demonstrated the importance of time on environmental and ecological behavior (Joireman, 2005; Joireman et al., 2004), and found future orientation had a positive effect on proenvironmental behavior (Carmi & Arnon, 2014; Milfont & Gouveia, 2006). We will focus on the BYOB behavior and examine how time orientation predict BYOB behavior. Through questionnaire measure, we have found future orientation has a positive effect on BYOB behavior intention and perceived importance of the BYOB plays the mediation role between future orientation and BYOB intention.

Additionally, some studies have explored the effects of ethics-related factors on consumers' green behaviors (Kour, 2024). Indeed, because factors for driving green behaviors are often ethically laden (Luchs et al., 2010), applying ethical concepts into the analysis of the performance of these behaviors would enrich the comprehensiveness of the investigation (Black, Stern, & Elworth, 1985). Our study is based on the ethical decision-making framework by Hunt and Vitell (1986, 1993) (hereafter called “the H-V model”), which hold the idea that individual differences in ethical judgment on a moral issue will

influence consequently the corresponding ethical intention and behavior (Schlenker & Forsyth, 1977). And we have found that perceived importance of the BYOB is an antecedent of ethical judgement and BYOB behavior intention, ethical judgement plays the mediation role between ethical judgement and BYOB intention.

In theoretical contribution, we underline the mechanism of future orientation on BYOB intention. And from the ethical concept of BYOB, we also found other antecedent for ethical judgement and behavior intention: perceived importance of the ethical issue. In practical implication, we can manipulate consumers' future orientation and perceived importance of BYOB and to increase BYOB behavior in the real life. The research framework is as Figure 1.

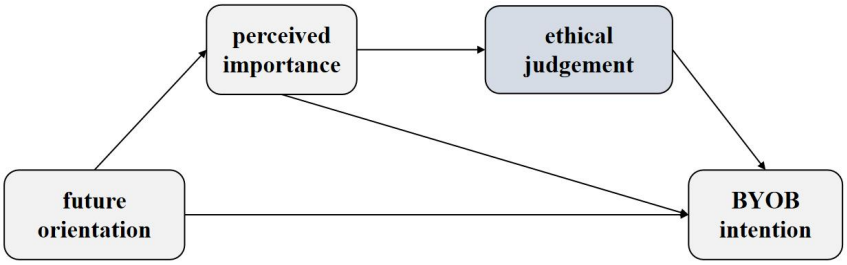

Figure 1. Research Framework

2. Literature Review

2.1 Green behavior: Bring Your Own Shopping Bags (BYOB)

BYOB is a green environment behavior that has received growing attention in the marketing research (Chan et al., 2008; Karmarkar & Bollinger, 2015). The excessive use of plastic shopping bags has caused serious environment problems worldwide (Hawkins, 2010). In China, the excessive use and subsequent improper disposal of plastic bags have made China suffer from serious "white pollution," a term coined to describe the unsightly tumbleweed of plastic bags blowing around on streets. Even if they are discarded properly, these polyethylene-made bags are expected to take at least 200 years to decompose in landfill sites, thus causing further serious damage to China's deteriorating ecological conditions (China Daily, May 31, 2005). So it would be a formidable challenge for marketers and government which pursuit environmental and business sustainability to persuade consumers to engage in BYOB. In order to reduce the usage of plastics bags, Chinese government has issued the "plastic ban order" from 2007, and make all supermarkets offer paid plastic bags to encourage consumer bring their own shopping bags.

Except Chinese government, in order to reduce plastics pollution, many countries around the world have taken measures to execute "plastic ban order". According to media reports on March 28, the European Parliament passed a "comprehensive plastic ban" based on the overwhelming results (Sohu News, March 30, 2019). Queensland and Western Australia prohibit retailers from offering disposable ultra-thin plastic bags to customers from August 1th. The New Zealand government has announced that it will gradually ban all disposable plastic shopping bags in next year (Sohu News, December 14, 2018).

But what depressed is, the effects do not reach expectation. For example, Coles, the Australian supermarket giant, withdrew the “plastics ban” only a month after it was implemented. On August 1, Coles continued to offer free plastic bags to customers. Because the “plastics ban” (shops no longer provide disposable plastic bags for customers and consumers can shop with their own bags or pay 15 Australian cents to buy reusable plastic bags) movement triggered strong discontent among Australians, and "plastic bag rage" spread across the country (Sohu News, August 29, 2018). Why are consumers not willing to bring their own shopping bags and who will boycott the “plastics ban”. We try to answer this question from the individual’s time orientation.

2.2 Time Orientation

People tend to be motivated more either by future or by present goals in making decision, reflecting greater future or present time orientation (Simon, Vansteenkiste, Lens, & Lacante, 2004). Time orientation has been applied in many fields, including entertainment behavior (Shores & Scott, 2007), buyer-seller relationship (Schultz & Good, 2000), saving behavior (Beek, Antonides, & Handgraaf, 2013), environmental behavior (Strathman et al., 1994) and so on. As a kind of environmental behavior, green behavior has been widely concerned by people from all walks of life. It is well known that, because of the cost (time, money), to a large extent, the implementation of environmental behavior is always based on the sacrifice of current interests. Similarly, green behavior needs to be balanced between immediate costs and future environmental benefits. In fact, it is now generally accepted that environmental problems are not only conflicts between individual and collective interests (Steven, Arnocky, Mirella, & Stroink, 2011), but also immediate cost and future benefit conflicts (Joireman, 2005; Milfont & Gouveia, 2006). When exploring individual and collective interests, researchers focus on individual value differences - altruistic group is more inclined to implement pro-environment behavior than egoistic group; in the study of immediate and future conflicts, researchers focus on individual time differences.

The individual differences in time orientation can be measure by Consideration of Future Consequences Scale (CFCS) (Strathman et al., 1994). CFC scores are calculated as the average of the five future items and the seven reversed-coded immediate items. One factor model assumes that those scoring high on the CFCS are more likely to weigh the future consequences of their behaviors and more willing to sacrifice their immediate benefit for future gains, those scoring low on the CFCS are less care about the future consequence of their behavior and pay more attention to immediate gain at this moment. However, some studies have suggested that CFCS has two theoretically and empirically different factors: CFC-future (future orientation) and CFC-immediate (immediate orientation) (Arnocky, Milfont, & Nicol, 2014; Beek et al., 2013). The research will examine the effect of time orientation with both one factor CFC and two factors CFC on BYOB intention.

Previous researches studied on individual environmental behavior from the time orientation shows that future orientation can significantly predict individual's pro-environment attitude and pro-environment behavior, such as recycling (Milfont & Gouveia, 2006, Joireman et al., 2001), the use of public

transportation (Joireman et al., 2004). Taciano explored the relationship between time orientation and environmental behavior through meta-analysis. The results showed that the correlation between future orientation and pro-environmental behavior was greater than that between immediate orientation and pro-environmental behavior. The time orientation plays an important role in influencing individual environmental attitudes and behaviors. Arnocky et al. also pointed out that individuals who consider future outcomes tend to be more environmentally friendly in the long run, while those who consider immediate outcomes focus more on immediate benefits when exploring the impact of future outcomes and immediate outcomes on sustainable behavior. According to the above content, BYOB, as a kind of green behavior and an environmental protection behavior with long-term significance to environmental quality, is more likely to be carried out by the individuals with future orientation, less likely by individuals with immediate orientation. So we hypothesize:

H1a: Future orientation will have a positive effect on BYOB intention.

H1b: Immediate orientation will have a negative effect on BYOB intention.

2.3 Perceived Importance

Perceived importance (PI) refers to "the perceived personal relevance or importance of an issue or action to an individual" (Robin et al., 1996). The PI construct parallels the concepts of consumer social involvement (e.g., Celsi & Olson, 1988; Greenwald & Leavitt, 1984). The involvement construct has been found to be important in the ways consumers approach the purchase of a product and the way voters participate in elections. The PI construct focuses on individual perceptions of the ethical issue (in this case, BYOB practice), rather than on the exogenous characteristics of the issue, Robin et al. (1996) believe that the construct represents a better predictor of individuals' conative (and thus behavioral) responses compared with Jones' (1991) moral intensity construct. Thus, PI is an individual state construct that is believed to be closer to the behavioral intention and behavior decisions. And Kang et al. (2013) found that perceived personal relevance can have a positive effect on environmentally sustainable textile and apparel consumption. That is to say, the more importance or relevance the individual feels the issue is, the more likely the individual will engage the behavior. So we hypothesize:

H2: Perceived importance (of the BYOB) have a positive effect on BYOB intention

2.4 Ethical Judgement

Ethical judgment is the extent to which one believes that an issue (here points to BYOB practice) is ethically right or wrong (Alsaad, 2021). For the purpose of hypothesis development, this research defines ethical judgment as the extent to which a consumer makes a favorable judgment of an ethical practice (BYOB practice) or an unfavorable judgment. Once a consumer has made an ethical judgment, he/she continues the process by establishing an ethical intention about the issue at stake (Jones, 1991). The positive effect of individual ethical judgment on ethical intention is conceptually well established in the ethical decision-making model presented by Hunt and Vitell (1986; 1993). Substantial empirical studies also support the relationship between ethical judgment and ethical intention (e.g., Chan et al.,

2008). Therefore, we hypothesize the following:

H3: Ethical judgement (of the BYOB) have a positive effect on BYOB intention

2.5 The Relationship between Future Orientation, Perceived Importance and BYOB Intention

People who have the future orientation weigh more about future consequences, they will pay more attention to the future gains of the behavior even if they have to sacrifice the immediate benefit. The implementation green behavior (BYOB) may be based on the sacrifice of current interests (time and money), but it benefits to future. So those who weigh more about future consequence will weigh more about BYOB, and they will perceive more importance about BYOB, thus they will be more likely to engage BYOB. So we hypothesize:

H4: Future orientation have a positive effect on perceived importance (of BYOB).

H5: Perceived importance play a mediation role between future orientation and BYOB intention.

2.6 The Relationship between Perceived Importance, Ethical Judgement and BYOB Intention

Ferrell and Gresham (1985) state: "Beliefs may serve as inputs affecting attitude formation/change and intentions to resolve problems. Also, evaluation or intention to act (or even think about an ethical dilemma) may be influenced by cognitive factors that result from the individual's socialization processes". These authors acknowledge that an antecedent state of the PI (of the ethical issue) can influence how the decision-maker judges the ethical problem. The more important the individual perceives the ethical issue (BYOB), the more ethical the individual judge the issue is, thus more likely to engage the ethical practice. So we hypothesize:

H6: Perceived importance of BYOB have a positive effect on ethical judgement of BYOB.

H7: Ethical judgement of BYOB plays a mediation role between perceived importance and BYOB intention.

3. Method

3.1 Data Collection

The target population of the study are consumers that live in China, are over 18 years old, and have already known the BYOB practice. An online survey obtains a convenience and snowball sample of 550 responses through www.sojump.com. The questionnaire was pre-tested through face-to-face interviews with a group of 20 participants recruited from the authors' circle of acquaintances to check the understandability of the questions. After collecting data, we deleted the samples which the answer time is less than 10 seconds (seen as bad attitude), and also deleted the bad data according to three standard deviation method, 530 valid data is retained. For the 530 respondents, the demographic characteristics of the sample appear in Table 1.

3.2 Measures

The study adopts scales that the literature commonly uses. In the current method, 27 items capture time orientation, perceived importance, ethical judgement, BYOB intention, and demographic characteristics. Time orientation is measured by CFC scale (Strathnab er al., 1994). The CFC consists

Table 1. Demographic Characteristics of the Sample

Demographic characteristics of the sample(n=530)	
Gender	
male	224(42.2%)
female	306(57.8%)
Age	
18-24	183(34.5%)
25-29	186(35.1%)
30-39	143(26.9%)
40-49	10(1.9%)
50-59	8(1.6%)
Education	
High school or less	59(11.1%)
University(undergraduate)	274(51.7%)
Master postgraduate	170(32.2%)
Doctor postgraduate	27(5%)
Monthly Income(yuan)	
Less than 3000	106(20%)
3000-5000	95(17.9%)
5000-10000	200(37.7%)
10000-20000	94(17.7%)
20000-50000	32(6%)
More than 50000	3(0.6%)
Place of birth	
Cities and towns	303(57.2%)
Country village	227(42.8%)
Location	
Cities and towns	356(67.2%)
Country village	174(32.8%)

of 12 items rated on a 5-point Likert-type scale, anchored at 1 = extremely uncharacteristic and 5 = extremely characteristic. Example items include “Often I engage in a particular behavior in order to achieve outcomes that may not result for many years,” “My convenience is a big factor in the decision I make of the actions I take” (reverse coded), and “I consider how things might be in the future, and try to influence those things with my day-to-day behavior.” CFC-Future (future orientation) and CFC-Immediate (future orientation) scores were respectively calculated as the average of the five

future items and the seven immediate items. Perceived importance was defined as the extent to which an individual believes that BYOB is importance to his/her own personal lifestyle. Perceived importance was measured using four items adapted from Robin et al. (1996) on a 7-point Likert scale. We asked the respondents the question, “How will you perceived the BYOB practice?” on four seven-point items “unimportant issue/important issue, insignificant issue/significant issue, issue of no concern/issue of considerable concern, rivial issue/fundamental issue”. We adapted the measurement scale of ethical judgment from Mayo and Marks (1990). We asked the respondents the question, “How will you judge the BYOB practice?” on two seven-point semantic differential scales with the anchor points being “ethical/unethical, right/wrong”, We adapted the measurement scale of BYOB intention from Bagozzi's (1981) study. A sample item was given: “Please choose the option which best reflects your intention to bring your own shopping bags with regard to your next shopping to supermarkets (1 = definitely plan to bring, 7 = definitely plan not to bring).”

Perceived importance, ethical judgement and BYOB intention were all measured on a 7-point Likert scale, time orientation was measured on a 5-point Likert scale. The initial pool of all measurements is shown in Table 2. The reliability and validity of all the measurements were ensured through an analysis reported in the Results section.

Table 2. Construct and Measure

Construct and measure
Future orientation *(Strathman,1994)*
Cronbach’ s α=0.712 AVE=0.501 CR=0.749
1. I consider how things might be in the future, and try to influence those things with my day to day behavior.
2. Often I engage in a particular behavior in order achieve outcomes that may not result for many years.
3. I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.
4. I think it is important to take warning about negative outcomes seriously even if the negative outcome will not occur for many years.
5. I think it is important to perform a behavior with important distant consequences than a behavior with not occur for many years
Immediate orientation *(Strathman, 1994)* Cronbach’ s α=0.771 AVE=0.502 CR=0.831
1. I only act to satisfy immediate concerns, figuring the future will take care of itself.
2. My behavior is only influenced by the immediate (i.e, matter of days or works) outcomes of my cations.
3. My convenience is a big factor in the decisions I make or the actions I take.
4. I generally ignore warning about possible future problems because I think the problems will be resolved before they reach crisis level.

5. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.

6. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.

7. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.

Perceive importance *(Robin et al., 1996)*

Cronbach' s α=0.954 AVE=0.884 CR=0.968

How do you perceive the BYOB issue?

1. unimportant issue/important issue
2. insignificant issue/significant issue
3. issue of no concern/issue of considerable concern
4. trivial issue/fundamental issue

Moral judgement *(Mayo and Marks, 1990)*

Cronbach' s α=0.776 AVE=0.817 CR= 0.899

How do you judge the BYOB behavior?

1. Unethical/ethical
2. Wrong/right

BYOB behavior intention *(Bagozzi's, 1981)* Cronbach' s α=0.755 AVE=0.658 CR=0.852

1. All things considered, what are the chance you will choose to BYOB to the supermarkets in future?
2. Please choose the option which best reflects your intention of BYOB which regard to next shopping to supermarkets.
3. If you are asked to become a regular user of BYOB to supermarkets, how frequently might you bring?

3.3 Common Method Bias

Because the data are from a single source, the common method bias is a threat to the validity of the results (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To assess the impact of this bias, the study uses Harman's single factor test. The results show that no single factor emerges from the analysis of all of the survey questions. The factor analysis' non-rotated solution produces four factors with eigenvalues greater than 1.0 that account for 67% of the total variance, with the first extracted factor accounting for 26% of the variance in the data. These results suggest there is no common method bias.

4. Results

4.1 Measurement Model Testing

We firstly examined and summarized the correlation of all the variables, as is shown in Table 3. We can

see future time orientation (measured by one factor CFC) and immediate orientation (measured by CFC-immediate) have no relationship with BYOB intention, hypothesis 1b is rejected. In the subsequent analysis, only future orientation (measure by CFC-future) will be take into the proposed model when examine the relationship between time orientation and BYOB intention.

Table 3. Correlation of All the Variables

	1	2	3	4	5	6
Future orientation	1					
Immediate orientation	-.264**	1				
Time orientation	.660**	-.899**	1			
Perceived importance	.085*	-.007	.044	1		
Ethical judgement	-.050	-.092	.049	.389**	1	
BYOB intention	.174*	-.032	.104	.537**	.305**	1

*Note. *represent P<.05, **represent P<.01, ***represent P<.000. The same as follow tables. Future orientation is measured by CFC-future; Immediate orientation is measured by CFC-immediate; Time orientation is measured by unidimensional CFC.*

We conducted a confirmatory factor analysis (CFA) using AMOS 21 to assess the overall fit of the measurement model as well as the measurement reliability and validity of the latent constructs proposed in the model. We estimated the measurement model with the maximum likelihood procedure. The overall fit indices, including chi-square ($\chi 2$), degree of freedom (df), confirmatory fit index (CFI), incremental fit index (IFI), normed fit index (NFI) and root mean square error of approximation (RMSEA), were used to evaluate the fit of the measurement model. On the whole, these fit indices ($\chi 2(180) = 125.638$, $\chi 2/df = 1.770$, CFI = 0.956, IFI = 0.957, NFI= 0.906 and RMSEA = 0.066) indicated a good fit of the measurement model (Hu & Bentler, 1999).

Results showed that the standardized estimates of all indicators on their corresponding constructs were greater than 0.50 and significant at the 0.001 level (Bagozzi & Yi, 1988). Composite reliability values and Cronbach's alpha coefficients of all the latent constructs exceeded the recommended level of 0.70 (Nunnally, 1970), thus supporting the internal consistency of the measurements. Furthermore, in support of the convergent validity and discriminant validity, all AVE values exceed the cutoff value of 0.50 (Bagozzi & Yi, 1988). The table 3 provides details of the measurement validity and reliability results.

4.2 Hypotheses Testing

The structural equation model was used to test the hypotheses. The proposed model showed goodness-of-fit: $\chi 2(180) = 126.879$, 1.762, CFI = 0.956, IFI = 0.956, NFI= 0.905 and RMSEA = 0.065. As was shown in the Table 4. The standardized coefficients estimates showed that the path between

future orientation and perceived importance (β=0.133, t=1.961, p<0.05), perceived importance and ethical judgement (β=0.444, t=5.187, p<0.001), ethical judgement and BYOB intention (β=0.183, t=1.963, p<0.05) were positively significant. It showed that future orientation can positively predict perceived importance, perceived importance can positively predict ethical judgment, ethical judgment can also positively predict BYOB intention.

Furthermore, the direct effect of future orientation on BYOB intention (β=0.215, t=2.171, p<0.05), the direct effect of perceived importance on BYOB intention (β=0.518, t=5.675, p<0.001) were positively significant. Moreover, the indirect effect of future orientation on BYOB intention (β=0.079, p<0.05, 95% CI [0.045, 0.187]), the indirect effect of perceived importance on BYOB intention (β=0.081, p<0.001,95% CI [0.002, 0.171]) were also positively significant, it showed that perceived importance played a partial mediation role between future orientation and BYOB intention; Ethical judgement played a partial mediation role between perceived importance and BYOB intention.

Table 4. Summary of the Hypotheses and Fit index of the Proposed Model

			Total effect	Indirect effect	Direct effect	t	Hypotheses
BYOB intention ← Future orientation			0.295*	0.079*	0.215*	2.171	H1a and H5 supported
BYOB intention ← Perceived importance			0.599***	0.081*	0.518***	5.675	H2 and H7 supported
BYOB intention ← Ethical judgement			0.183*	—	—	1.963	H3 supported
Perceived importance ← Future orientation			0.133*	—	—	1.961	H4 supported
Ethical judgement ← Perceived importance			0.444***	—	—	5.187	H6 supported
fitness of proposed model	Chi-square	df	Chi-square/df	RMSEA	CFI	NFI	IFI
	126.879	72	1.762	0.065	0.956	0.905	0.956

5. Qualitative Comparative Analysis

The Qualitative Comparative Analysis (QCA) is used to test how causal conditions jointly (as configurations) link to the outcome of interest (Fiss, 2011). This study applied fuzzy-set QCA to analyze data by using the fsQCA 3.0 software (www.faqca.com). Before the conditions analysis, the original data with both causal conditions and the outcome were calibrated by transforming them into a set of membership scores that ranged from zero (full exclusion from a set) to one (full inclusion). This study calibrated the data with three anchors: the original value that covers 95% of the data was set as the point of full membership, the original value that covers 50% of the data was set as the crossover point, and the original value that covers 5% of the values was set as the point of full non-membership (Woodside, 2013). Table 5 showed the summary data for independent variables (conditions) and outcome.

Table 5. Summary Data for Independent Variables (Conditions) and Outcome

Statistics				
	BYOB intention	Future orientation	Perceive importance	Ethical judgement
Mean	5.11	3.66	4.85	3.94
SD	1.24	0.53	1.41	0.90
Minimum	1	2	1	1
Maximum	7	5	7	7
Calibration values at				
95%	6	4.6	6.8	6.5
50%	4.3	3.4	4.5	4
5%	2.2	2.6	1.6	2

The result of fsQCA was showed as Table 6. We can see that future orientation, perceived importance and ethical played importance role on BYOB intention. And the combined condition of the three variables can predict the BYOB intention well too. This can be interpreted by value-brief-norm theory (Schwartz, 1977). According to the VBN theory, the three antecedents can predict altruistic intention and behavior well and there is also a sequential process: value→ brief→ norm→ behavior. Future orientation is a kind of value orientation which values future consequences very much, perceived importance is a kind of brief which recognize the BYOB as a very importance practice, ethical judgement is a kind of personal norm which refers to moral obligation to perform the BYOB behavior. The fsQCA result indicated the combined of future orientation, perceived importance and ethical judgement played a significant role in influencing the BYOB intention. Therefore, it showed high consistency and coverage to BYOB intention.

Table 6. Summary of Conditions

condition	consistency	coverage
Future orientation*Perceived importance*Ethical judgement	0.954	0.956
Future orientation*Perceived importance	0.948	0.930
Perceived importance*Ethical judgement	0.935	0.921
Future orientation*Ethical judgement	0.920	0.911
Future orientation	0.868	0.858
Perceived importance	0.930	0.914
Ethical judgement	0.901	0.914

6. Discussion

We found that one factor CFC can't predict BYOB intention, but future orientation (CFC-future) of the

two factors CFC can positively predict BYOB intention, immediate orientation (CFC-immediate) has no relationship with BYOB intention. At the same time, perceived importance (of the BYOB practice) and ethical judgment (of the BYOB practice) also have positive effects on BYOB intention. And perceived importance played a partial mediation role between future orientation and BYOB intention; Ethical judgement played a partial mediation role between perceived importance and BYOB intention. And a fsQCA result showed the combination of future orientation, perceived importance and ethical judgement can predict BYOB intention well.

6.1 CFC: One Factor or Two Factors

Although CFC was first come up as the one factor construct, but more and more studies consider it as two factors construct. Petrocelli (2003) used a large number of samples to investigate the underlying factor structure, principal components analysis showed two correlated factors. Factor 1 was comprised of seven reverse-coded immediate items plus a future item, while factor 2 was comprised of the left four future items. And found that males scored higher than female in factor 1, but no significant difference in factor 2. Subsequent studies continued to explore the factor structure and validity of the CFC. Rappange, Brouwer, and Van Exel (2009) found two factors of CFC, factor 1 contained seven reverse-coded immediate items, factor 2 contained five future items. Toepoel (2010) also found the same result. Charlton et al. (2011) examined the relationship between two factor CFC and discounting rate and self-efficacy, found that discounting rate only related to immediate orientation factor, but no related with future orientation factor. Although both factors were related to self-efficacy, but future orientation factor are more related to self-efficacy than immediate orientation factor. Other studies considered CFC as two factors construct also found that healthy behavior (body mass index and cigarette smoking) can be predicted by immediate factor but no relationship with future factor (Adams, 2012), exercise and healthy eating attitudes and intention can be positively predicted by future orientation but no relationship with immediate future orientation (Joireman et al., 2010).

All these results supported that there was difference between future orientation and immediate orientation underlying the CFC scale. We can see in our research that although the future orientation was negatively correlated to immediate orientation, they were not polar opposites. As it was indicated by Keough, Zimbardo, and Boyd (1999), there was conceptualizations distinguish between future and present time orientation. Although negatively correlated, they were still empirically and theoretically distinct because a person inevitably ignored immediate outcomes while concentrated on the future outcomes (Charlton et al., 2011).

It can be seen from our research that two factors CFC can predict BYOB intention better than one factor CFC, and exploratory factor analysis showed that CFC surely can be divided into two distinct factors. The reason that one factor CFC didn't show influence on BYOB intention may be the effect was reconciled by future orientation (CFC-future) and immediate orientation (CFC-immediate). But future orientation (CFC-future) can predict BYOB intention positively, indicating those who pay attention more to future consequence will care more about BYOB and more likely to engage BYOB

behavior.

6.2 Perceived Importance: Moderator or Mediator

We found that perceived importance played a partial mediation role between future orientation and BYOB intention, and ethical judgement played a partial role between perceived importance and BYOB intention. This seems to be different from the result of previous studies. Robin et al. (1996) give the construct "perceived importance" based on the ethical decision-making, and he come up with two propositions: proposition 1 think that perceived importance operates as a cause variable that precedes ethical judgment rather than as a moderator or mediator variable. Because he found perceived importance showed no relationship with ethical intention. Perceived importance can affect ethical judgment, and the judgement can affect intention, but perceived importance can't influence intention directly. Also in another research about BYOB, Chan et al. (2008) found perceived importance showed no relationship with BYOB intention and ethical judgement, but it moderated the relationship between ethical judgement and BYOB intention. Haines, Street, and Haines (2008) found that perceived importance had an effect on ethical judgement, but didn't show any direct effect on ethical intention. What different from our research are: firstly, we found perceived importance show significant effect on ethical intention (BYOB intention), and perceived importance partially mediated the relationship between future orientation and BYOB intention. Secondly, perceived importance can not only predict ethical judgement and ethical intention (BYOB intention) positively, and also ethical judgement can play a partial mediation role between perceived importance and ethical intention (BYOB intention).

We have tried to examine whether perceived importance can be a moderator between future orientation and BYOB intention, or a moderator between ethical judgement and BYOB intention. Empirical result showed that perceived importance showed no moderation effect on the relationship between future orientation and BYOB intention and the relationship between ethical judgement and BYOB intention. Conversely, perceived importance has strong direct effect on BYOB intention. As it was indicated by Robin (1999), perceived importance is an individual state construct that is very close to behavior intention and decision, it can be a better predictor of intention and behavior. So those have future orientation often consider more future benefit of BYOB, will perceive more importance of BYOB, and thus more willing to engage BYOB. Therefore, we think perceived importance can be an anecdote of both ethical judgement and ethical intention, and also partially mediate the relationship between future orientation and BYOB intention.

6.3 Implication

We found that two factor CFC can predict BYOB intention well than one factor CFC, specially, future orientation can positively predict BYOB intention, but immediate orientation showed no relationship with BYOB. In theoretical research implication, two factor CFC should be explored more in future studies, and different domain may show different effect about time orientation, two factors CFC should be applied into more domains. In marketing practice, marketing can manipulate consumers' future orientation to increase BYOB behavior. Time orientation is not only a stable construct, but can be

changeable with time and situation (Toepoel, 2010). Some manipulation measures can be taken to prime future orientation. For example, marketer can present advertisement slogan to ask consumers to imagine what their life will be in the future, this can prime the future orientation (Cheng, Shein, & Chiou, 2012), and further improve BYOB behavior of consumers.

Different from the previous studies about perceived importance and ethical intention, we found perceive importance had a significant direct effect on ethical intention (BYOB intention). Theoretically, the role of perceived importance between ethical judgement and ethical intention can be further explored. In marketing practice, marketer can manipulate consumers' perceived importance to increased BYOB behavior. After all, the perception of importance is something that management can manipulate quite easily. Reward or punishment, can be used to influence individual perception of importance on the BYOB practice. Although the characteristics of the BYOB issue can be hard to change, an individual's perception of the BYOB can be managed easier.

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