VALIDATING A MEASURE FOR ALTRUISTIC SELF TOWARDS THE RESPONSIBLE PLATE FOOD CONSUMPTION: A MIX METHOD APPROACH

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ABSTRACT

This study intends to establish the measurement model for altruistic self-concept for plate food consumption in social marketing. The findings from earlier studies do not really suit the altruistic self-concept scale, especially in the context of socially responsible plate food consumption. Hence, this study validated the instruments of altruistic self-concept. Using the mix method pragmatism pluralism approach using 1536 respondents for quantitative study and 11 intensive interviews for qualitative study. The data were collected using self-administered questionnaire. The respondents were selected randomly using stratified sampling technique. The exploratory factor analysis procedure retained five from the total of ten items developed. The confirmatory factor analysis (CFA) procedure using IBM-SPSS-AMOS confirmed the five measuring items for altruistic self in the context of socially responsible plate food consumption. The study employed the qualitative study to verify the four sub-constructs of altruistic self-concept namely, material, psychological, time and relationship. The novelty of this study lies on the measure of altruistic self-concept construct in the lenses of consumer behavior towards socially responsible plate food consumption. The study adapted scales and validated them by using the mix method pragmatism pluralism approach. Private and publish social marketing agencies may develop the consumer altruistic towards socially responsible plate food consumption.

Keywords: Altruistic self-concept; Reliability; Validity; Socially responsible plate food consumption.

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1.   INTRODUCTION

Construct validation is a significant measure for confirming the results from a research (Johari et al. 2009). A significant justification for the construct validity of altruistic self among consumers is based on four reasons: i) Earlier studies discussed the altruistic concept as a behavior (Rosen, & Sims, 2011; Schnall, Roper, &Fessler2010; Waytz, Zaki, & Mitchell, 2012; Baek, & Reid, 2013; Barasch et al. 2014; Hilbig, et al. 2015; Pavenkov, Pavenkov, &Rubtcova, 2015; Meyzari, &Bozorgi, 2016); ii) Most of the studies on altruistic concept in the context of social disorder (Sampson, Raudenbush, & Earls, 1997; Levine, Martinez, Brase, & Sorenson, 1994; Levine, Reysen, & Ganz, 2008); iii) The factor structure of altruistic concept could vary from context to context, therefore, it should be explored before data analysis; iv) conceptually and empirically, altruistic concept has been used with a sound social disorganization theory (Penner, Dovido, Piliavin, & Schroeder, 2005).

The concept of altruism is captivating in new directions of consumer self-concept for social change pertaining to socially responsible plate food consumption. However, this study carried out in the advanced marketing concept with the aid of altruism in consumer self-concept and known as a consumer altruistic self-concept. As per researcher knowledge, number of studies conducted in marketing with respect to consumer self-concept towards consumer brand preferences (Helm, Renk, & Mishra, 2016). No doubt, marketing literature is full of consumer self-concept with various dimensions (e.g., actual, ideal, social and ideal social self-concepts) (Pickett-Baker & Ozaki 2008). A limited study conducted by using the consumer altruistic self-concept in green environment context (Ayuso, 2006; Rivera & de Leon, 2005). Therefore, it is assumed that consumer altruistic self-concept is having significant importance for socially responsible plate food consumption behavior.

A number of studies conducted on human altruistic concerns such as; empathy-altruism hypothesis, justice, intrinsic altruistic motive system, identity relation, autonomous altruism, altruistic personality, empathic and sympathetic distress, endocentric and exocentric, and affect and emotion (Feigin et al., 2014). Still, altruistic literature needs to discuss the individual's open-mindedness by using the concept of altruism (Feigin et al., 2014). However, important gaps are existed in prior studies likewise; i) altruistic self-concept in the light of food scarcity, and ii) altruistic self-concept scale validity through mix method research methodology.

This study examined the construct validity and psychometric properties of the altruistic self-concept instrument. Particularly, the objectives of the study include: i) to test the altruistic concept in consumer self-concept instead of behavior in the context of socially responsible plate food consumption in Sarawak, Malaysia, ii) to assess the structure of altruistic self-concept using the response of household plate food consumers in Sarawak, Malaysia, iii) to assess the altruistic validity properties counting with content validity, convergent validity, and discriminant validity using respondents from the household plate food consumers in Sarawak Malaysia.

The present study seeks to gather evidence or finding of the altruistic self among plate food consumer at household level, therefore study have following research question; i) Does altruistic concept is a self-concept of consumer in the context of socially responsible plate food consumption? ii) What is the factorial structure of altruistic self-concept construct in the food waste management industry in Sarawak Malaysia? iii) Do measures of the altruistic self-concept

construct have good validity properties to be used for further studies?. Furthermore, the structure of the paper is organized as follow: section 2 discussed the altruistic self, section 3 belongs to research method, section 4 clarifies the data analysis, section 5 elucidates the results and discussions and section 6 relates to results with implication of this study.

2. ALTRUISTIC SELF

The term altruism is necessarily divided on the bases of strengths of effect on the separate participating in actions or behavior. That altruism is concerned with absolute unselfish and welfare behavior which is promoting for others well-beings (Dialogue & Nexus, 2017). However, altruistic is taken from the concept of altruism which means that having self for altruism to bring the social change for well-being of the society. The altruistic self overtly discussing in the philosophy and psychology, which contain the meaning of other interests in place of self and motivate others (The Columbia Electronic Encyclopedia, 2013). More concisely, Altruistic self refers to an individual faith to do something good for greater benefits of someone in order to charitable engagement except unselfishly and selfishly (Padgett, 2011). Moreover, altruistic self can be expressed as a work for the good and welfare of others and an unselfish preference (Kolm, 2006). An altruistic self has generated the greater civic or outer benefits to the beneficiary of the behavior (Padgett, 2011).

The motives of altruistic self are found differently with respect to food consumption. There are four motives are traced out (e.g., benevolence, ecology, equality and universalism) from the altruistic literature, which have been shown as a predictor of food consumption in consumer behavior (Aertsens et al., 2009; Hughneretet al., 2007). Motives of altruistic self-concept, there are two benevolence and Universalism found as a predictor of regular food consumption, especially organic food in the area of consumer behavior (Krystallis, Maglaras, &Mamalis, 2008). In the same way, the consumers who have altruistic self with respect to the ecology motive (i.e., defined as "harmony with the universe and sustainable further") have a tendency to consumer the organic food in their daily lives (Zanoli & Naspetti, 2002).

An individual altruistic self-concept is depending upon divergent motives for existing inheritance on under various household behavior models. Few of the researchers summarized three household models which are related to individual behavior (Horioka et al., 2000; Horioka, 2002; 2014). Such as; Life Cycle Model (LCM), The Altruism Model, and The Dynasty Model. As, Life Cycle model is also known as self-interest model, in this model, generally, individuals do not have plan to leave tradition or use bequest to exchange financial backing. Similarly, nursing cares which are provided by children during the old age. In the altruism and dynasty building models, Individuals are having a positive tradition laving motive towards their children. Furthermore, individuals are more motivated to keep their family name alive in the dynasty model. Harioka (2009) argued that individual altruistic self-surrounded between family motives. Altruistic self not only based on family behavior but also vary from country to country. A number of studies compared the individual's altruistic self at world level. Horioda et al (2000) and Horioka (2009) concluded that Japanese permission frail and revenged tradition plan. In 2014, Horioka studies resulted that American and Indians were having more altruistic self than Japanese and Chinese.

At the end, there are a number of factors that have been extended the literature of food consumption. A structural model and two factors egoistic (e.g., personal health) and altruistic (e.g., environment friendly) consideration or self has been found that these factors influenced the consumer food consumption, particularly for organic food consumption (Kareklas, Carlson & Muehling, 2014).

3.   RESEARCH METHODOLOGY

3.1.   *Mix Methods Pragmatism Pluralism*

This study based on mix-method research design as phenomenological approach for qualitative and positivism for quantitative study (Collis & Hussy, 2013). Creswell (2009) using both methods i.e. quantitative and qualitative for data collection helps researchers to strengthen the findings. In this paper pragmatism pluralism approach is used. Pragmatism means events happening to the situation. This approach allows the researcher to use any method solve the problem. So, in this study pragmatism approach is used. Researcher has used both quantitative and qualitative methods for data collection. There are six research designs existed in mix method but for the purpose of current study researchers have used explanatory sequential research design. In this design researcher first collect quantitative data and then after analysis to strengthen the quantitative part qualitative data is also collected as supplement.

3.2.   *Quantitative Method*

The target population of this study is all consumers who are eating food in the plate in their houses in Sarawak Malaysia. Sarawak is the fifth major state of Malaysia where massive quantities of food is wasted on a daily basis (Agamuthu & Fauziah, 2011). Therefore, Major cities (Bintulu, Kuching, Sibu, Miri) were selected based on stratified sampling technique, and data were useable from these major cities of Sarawak. Moreover, minimum sample size of each state is calculated through Israel's (2009) formula: **n= N/ [1+N (e2)].** In the light of this sample size formula, the total sample size was drawn in Table 1 below:

Table 1: Sample Allocated to Major Cities of Sarawak

Major Cities	Population in Millions	Percentage	Sample
Kuching	7.05	44.38	**682**
Sibu	2.99	18.85	**290**
Bintulu	2.20	13.84	**212**
Miri	3.64	22.93	**352**
	15.89	100.00%	**1536**

A total of 1600 questionnaires were administrated to the household plate food consumers.

3.3. Measurement of Altruistic Self

Altruistic refers to motivational construct aimed at others well-beings (Schultz, 2001). The construct altruistic self has been used in several prospective. Altruistic construct consists of different items by different researchers. Moreover, altruistic self-construct has been used by other researchers in several contexts (Rushton, Chrisjohn & Fekken, 1981; Krueger, Hicks & McGue, 2001; Rushton et al., 1986). Rushton, Chrisjohn and Fkken (1981) 20 items based on five-point Likert, scale anchored from Never (1) to very often (5) was used to measure the altruistic construct by Rushton et al. (1986); and Krueger, Hicks and McGue (2001). The study used a measure altruistic reported by Tapia-Fonllem et al. (2013) and Corral-Verdugo et al. (2008). The scale was based on ten items and on a five pointLikert scale anchored from strongly disagree (1) to strongly agree (5) as recommended by Dawes (2008). For better understanding, items are modified according to Malaysian culture. Thus, all the items of altruistic self-concept scale are shown in Table, 2.

Table 2: Altruistic Self Scale

Sr. No.	Scale
1	I provide food for the poor.
2	I assist people who fall or get hurt.
3	I help strangers asking for directions.
4	I visit the sick at hospitals or their homes.
5	I help old or handicapped whenever I see them.
6	I provide some money to the homeless.
7	I donate money to organizations for charity.
8	I donate money to the flood victims.
9	I participate in fund-raising activities for hungry people.
10	I look after my neighbours.

Source: Altruistic self-concept measurement is adapted from Tapia-Fonllem et al. (2013)

3.4. Qualitative Method

Creswell (2009) suggested that for a researcher to collect qualitative data maximum 10 participants are enough, this was later supported by (Smith et al., 2009). According to Wilig (2001) qualitative data collected should be in natural form, means it should not be coded or minimized in any form (Silverman, 2006). According to Smith et al. (2009) semi structured interviews are best because it gives researcher in depth understanding of the phenomena studied because it provides more enriched data. Also, authors allow the interviewees to talk freely about the matter no matter of the questions asked.

In the first phase of the interview consent form along with the interview guide were prepared. Rubin and Rubin (2005) explained that interview guide is the Scaffolding of the interview. Main questions were added in the interview guide and provided to interviewees along with consent form. After getting signed consent form and interview time from the respondents' researcher on the preplanned time started the interview. According to Smith researchers who are using interpretative phenomenological approach it is necessary to record interview. Because it is impossible for

researcher to write down all the important events happen during interview. So, researcher has recorded all interviews by taking permission and explaining purpose of interviews. After recording interview all the interviews were transcribed verbatim. After transcription researcher has again checked the recorded interviews and transcription if there is need to make corrections. Each transcript was read several times so researcher can make sense of it.

3.5. Preliminary Interviews

The interviews were conducted from ten household food consumers; according to Smith, Flowers, and Larkin (2009) Interpretative Phenomenological Approach (IPA) is used. The interview protocol was adapted from Avino (2006) with five face to face interview questions as: i) "Can you tell a little about yourself? Upbringing family food consumption values etc.", ii) "Some people believe that people should be independent and he able to live without help from others, Others feel that people should lend help in times of need. Where do you feel that fit in? Can you give some examples"? iii) "How do you feel about the prospect of people close to you dying due to lack of food? Is it a natural process, does it cause you great concern? How about your own death without food? Where do you feel that these feelings come from, or what are they influenced by"? iv) "some feel very good about themselves. Another feel very bad about themselves. How do you feel about yourself? What do you feel has influenced or does influence the way you feel about yourself"? V) "Do you feel that the boundaries (ethnic, religious, socioeconomic, etc.) that are created between groups of people are important? What if anything has affected where you perceive such (if any) boundaries"? Later on, the interviews were transcribed in NVivo in version 8, then nodes were created and themes were extracted from these nodes. Furthermore, template analysis was used to analysis themes (Webster & Watson, 2002) of present study.

4. DATA ANALYSIS

4.1. Quantitative Data Analysis

The analysis section consists of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The EFA procedure was conducted using IBM-SPSS 21.0 software while the CFA procedure was conducted using the IBM-SPSS-AMOS 22.0 software. The detailed of each analysis procedure is explained comprehensively:

4.1.1. Pilot test

The current study based on two stages of pilot study namely, preliminary pilot test and pilot test where the exploratory factor analysis (EFA) procedure is conducted. For the purpose of pilot testing, more than 100 respondents were sampled. Neil (2008) suggested that pilot study should be conducted in two phases to ensure the development of the scale and validity. In first pilot study, factor loading, reliability, Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of Sphericity test, and communalities test.

4.1.2. Exploratory Factor Analysis

To estimate the measures of altruistic self-concept construct, an exploratory factor analysis (EFA) procedure was conducted. Initially ten items for measuring the altruistic self-concept constructs were utilized. The earlier results of exploratory factor analysis (EFA), a two-factor solution was extracted with both factor 1 and factor 2 comprised of give items (Table 3). The items in factor 1 have low factor loading, while the items in factor 2 have acceptable factor loading. Five items ALS_6, ALS_7, ALS_8, ALS_9 and ALS_10 have high factor loading, while the other five items namely ALS_1, ALS_2, ALS3, ALS_4, and ALS_6 have relatively low factor loading. Also, ALS_2, ALS_3 and ALS_5 factor 2 have acceptable factor loading. In the first round of exploratory factor analysis (EFA) these three items were removed from the analysis. The results still suggested a two-factor solution for seven items. However, two items namely, ALS_1 and ALS_4 comprised of one factor which had insufficient for factorial stability, and low correlation less than 0.7 (Worthington & Whittaker, 2006). In the second round of exploratory factor analysis (EFA), ALS_1 and ALS_4 were also excluded from the analysis. Later on, the remaining five items suggested one factor which had an eigenvalue above 1 (2.955) and explained 59.105% of the variance.

The exploratory factor analysis (EFA) results for altruistic self-construct and its related items are illustrated in Table 3. Factor loading for the entire items of altruistic self-construct are acceptable, with the highest loading 0.83 and the lowest loading of 0.71. For the verification of good internal consistency of the sample data the Cronbach's alpha value of altruistic self-construct was 0.83, as shown in Table 3.

Table 3: Exploratory Factor Analysis (EFA) for Altruistic Self (AL_Self)

Factor Items		Factor Loading	Total Variance Explained	Cronbach's Alpha
Altruistic Self				
ALS_1	I give food to the poor.	0.54		
ALS_2	I assist people who fall or get hurt.	0.44		
ALS_3	I help strangers asking for directions.	0.42		
ALS_4	I visit the sick at hospitals or their homes.	0.51		
ALS_5	I help old or handicapped people.	0.60	59.105%	0.83
ALS_6	I provide some money to the homeless.	0.71		
ALS_7	I donate money for charity.	0.77		
ALS_8	I donate money for flood victims	0.83		

Factor Items		Factor Loading	Total Variance Explained	Cronbach's Alpha
ALS_9	I participate in fund raising activities for hungry people.	0.75		
ALS_10	I look after my neighbors.	0.77		

1. Kaiser-Meyer-Olkin Measure = 0.835 > 0.70

2. Bartlett's test of Sphericity was Significant (x^2 (10) = 1004.646, p < 0.05

3. The diagonals of the anti-image correlation matrix were also all over 0.5

4. Communalities were all above 0.4

4.1.3. The Main Study

4.1.3.1. Confirmatory Factor Analysis (CFA)

The scale of altruistic self was measured using ten items. The CFA procedure has been conducted on these ten items CFA. The initial CFA results were presented in Table 1.2. The results of ten items indicated that the model was an insignificant to the data with x^2 value of 565.177 (df = 35 and p = 0.000), unacceptable CMIN/DF, RMSEA, TLI, GFI and CFI. According to MIs suggestion, numbers of modification are required to achieve the fitness of the altruistic self-concept measurement mode. Expectedly, five changes of statistics of error covariance uncovered. So that, at ad hoc basis 'ALS_1', 'ALS_2', 'ALS_3', 'ALS_4' and 'ALS_5' was removed from the CFA. All removed items had acceptable factor loadings but unable to give good fitness along with them due to massive error covariance. Upon deletion five times from 'ALS_1' to 'ALS 5' a better fitted model was identified with reduced x^2 value from 565.177 (df = 35 to p = 0.000) to 29.186(df = 5, p = 0.000). To achieve the acceptable x^2 value a covariance is established between 'ALS_6' and 'ALS_7'. As a result, a highly acceptable x^2 value shown that made the model fit which has been presented in Table 4.

**Table 4:** Summary of Initial Findings (CFA): Altruistic Self (AL_S)

Items	Item Wording	Initial Factor Loading	Final	
			Factor Loading	C.R (t)
ALS_1	I give food to the poor.	0.54	Removed	
ALS_2	I assist people who fall or get hurt.	0.44	Removed	
ALS_3	I help strangers asking for directions	0.42	Removed	
ALS_4	I visit the sick at hospitals or their homes	0.51	Removed	
ALS_5	I help old or handicapped people	0.58	Removed	
ALS_6	I provide some money to the homeless	0.79	0.57	15.29
ALS_7	I donate money for charity.	0.65	0.66	14.28
ALS_8	I donate money to flood affected victims	0.69	0.81	10.09
ALS_9	I participate in fund raising activities	0.61	0.67	14.28
ALS_10	I look after my neighbors.	0.67	0.73	13.06

Fit Indices					
	CMIN/DF (x^2/df)	RMSEA	TLI	GFI	CFI
Initial	16.148 (565.177/35)	0.153	0.662	0.804	0.737
Final	1.954 (11.111/4)	0.040	0.990	0.995	0.996
Composite Construct Reliability 0.81, Average Variance Extracted 0.46					

Nevertheless, the altruistic self-concept scale is a reliable and validated measure after all modifications have been done till to model fitness.

Figure 1: Measurement Model
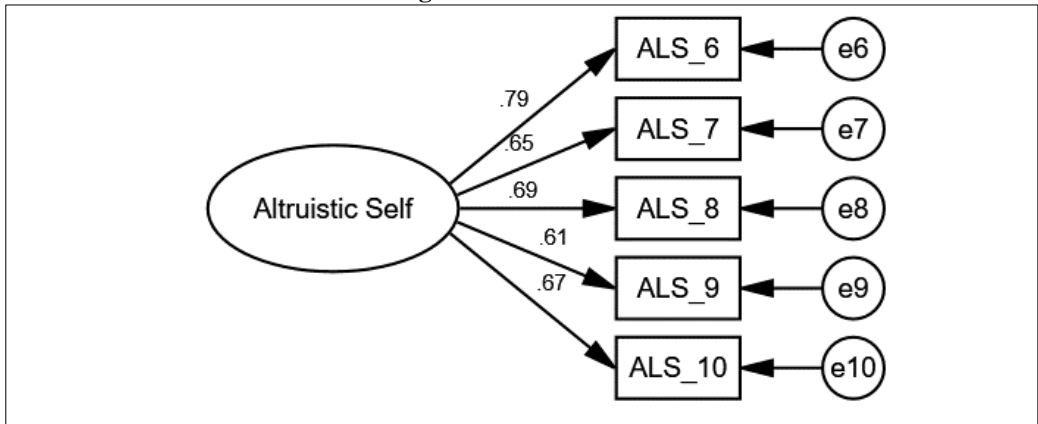
4.1.3.2. Convergent Validity

Convergent validity is denoted as "the degree to which multiple methods of measuring a variable provide the same results" (Gefen& Straub, 2005). Hair et al. (2006) and Afthanorhan et al. (2017) explained while each of the measurement items loads at significant t-value on its latent construct with 0.05 significance level and average variance extracted (AVE) value is greater than 0.05. In this study, the average variance extracted (AVE) value of altruistic self-concept was computed. The factor loading of altruistic self-concept of measurement model is reported in Table 1.2. However, all items are significantly loaded on altruistic self as a latent variable. All the items have reported that loading in SEM might be as high as 0.50. At that bases, loading of ALS_6, ALS_7, ALS_8, ALS_9, ALS_10 met the threshold value of loading (Gefen et al., 2000). Cronbach's Alpha and Composite Reliability values also exceeded the basic threshold level at 0.70. The composite reliability (CR) and average variance extracted (AVE) for this construct was 0.81 and 0.46 respectively. The AVE is lower than 0.5 threshold values but composite reliability is more than 0.6 cut-off values. Therefore, the convergent validity of the altruistic self is still established (Fornell & Larcker, 1981; Hair, Ringle, & Sarstedt, 2011; Awang et al., 2015; Aimran et al., 2017), which

is good according to acceptable criteria by Hair et al. (1995) presented in table 4. The results of factor loadings, composite reliability, average variance extracted are exhibit in the Table 4.

4.1.3.3. Discriminant Validity

Discriminant Validity is defined as "the degree to which measure of different latent variable are unique, i.e., the variance in the measure should reflect only the variable attributable to its intended latent variable and not to another variable and not to other latent variable" (Lehmann, 199; Farrell, 2010; Aziz et al., 2016). There are two ways to test the validity of the construct namely, convergent validity and discriminant validity. Discriminant validity is well-known by two factors: i) when the measurement items presented a suitable pattern of loading, when measurement items loading high on their theoretical assigned factor and low factor loading items on another factor, and ii) when the square root of AVE for each factor is higher than any pair of its correlations with any other factor. The result of discriminant validity is analysis of altruistic self-concept constructs show a high square root of AVE. On these criteria, altruistic self-concept constructs achieved the discriminant validity.

4.2.   Qualitative Data Analysis

Important steps in analysis of qualitative data is reading and rereading the transcriptions (Smith et al., 2009). By reading the transcriptions it helps researcher to make general notes and also it helps the researcher to highlighted themes and labels in transcriptions. The themes were recorded at right margin of transcribed text. Wilig (2001) argued that while making themes researcher must stick with the personal life and experience of the respondents. After this step next step was initial noting in this stage language used and semantic content in inductive manner. One point to be noted here that researcher at this step focus on descriptive part which has phenomenological flavor (Smith et al., 2009). At final step of this stage researcher has focused on the conceptual comments. Conceptual comments are interrogative in nature.

In next step of IPA approach researcher has to make themes. In this stage researcher has reduced the data but complexity of data was maintained. Researcher has highlighted the patterns, themes, interrelationships of the study. After this researcher has made connections between the themes. Those themes were highlighted which were most dominant themes.

4.2.1. Interpretation of Qualitative Data

After identifying the most dominant themes researcher has now made cluster of those dominant themes with other themes. These dominants themes were highlighted by understanding of the researcher from transcriptions. Not researcher has highlighted those dominant themes in Table 5. And explain and interpret one by one.

Table 5: NVivo Final Coding

Level one code	Level two codes
Altruistic Self	Material Altruistic Self • Fund Raising • Giving Psychological Altruistic Self • Happiness/unhappiness Time Altruistic Self • Look after • Helping • Benefits Relationship Altruistic Self • Charity • Directions • Floods • Homeless people

In line with opinions of the informant's altruistic self is divided into four main themes. Material, psychological, time and relationship altruistic self. These themes match with the themes or gets support from the study of Yildirm (2016) also identified these themes mentioned in the above Table 2. Themes are further divided into ten sub themes. Themes are discussed as follows:

Material Altruistic Self

Fund Raising

Respondents mentioned that they have sacrificed their body, physical health, their automobiles, money and belongings, views of respondents are given below.

> "*When buying food, we personally buy food for those people who are economically weak. Also we use our own resources for raising funds for those people who are economically weak or living below the poverty line.*

> *[Interviewee one]*

Another respondent also gave his views about altruism. His views are as follows.

> "*When I started raising funds for poor people I get problem everywhere. But it took few years now I do everything right. I have shown every kind of altruism.*

> *[Interviewee three]*

One respondent pointed out the main problem during fund raising.

> "*problem during raising funds are convincing people. Because people think that funds or money will go into wrong hands and will be misused.*

[Interviewee two]

Giving

Respondents talk about this themes and views of the informants are given as under.

"feels the happiness of giving. When you help poor or weak people, whether you gave money, or food or make life of any person easy and comfortable that time you feel inner satisfaction and happiness

[Interviewee six]

Psychological Altruistic Self

Happiness and Unhappiness

Respondents said that they sacrifice their own personality for others, they work for others in humanistic situations. While helping others they face and experience happiness and unhappiness both situations. Their views are as under:

"I compromise my pride, I begged for money, I sacrifice for that which is not in my job description but I do… I have done almost everything for those couples not to have divorce because of no food, or poor economic conditions. And mostly I get succeeded".

[interviewee eight]

Another informant said…

"Conditions of poor people made me sad, I was so stressed to death…I forget to smile. I never faced so much difficulty in my whole life".

[interviewee four]

Time Altruistic Self

Altruistic self, described in numerous ways, had a significant factor developed by sharing, benefits, look after others during floods and homeless people. Some participants recall from their early childhood being trained by altruistic self to help out the others. A 35-year-old married household female shared about her altruistic self for gaining self-happiness.

"I have always wanted to be helpful for others … I enjoy taking care of other, taking care of food and cloth…. I would like that people who could get benefits from me and I give benefits to them".

[Interviewee five]

Similarly, a warm desired to help others was expressed by 40-year-old household female who had responsibility of food for her kids and husband shared for this study. She pressed the intention and determination for help being a household female as follows:

> *"I feel obligated to human being ……. I knows I want well from other… So, I become good with other and live with love with care as giving food. Some time, I tried to visit my neighbor to look after their financial condition for good food. I do not only visited neighbor, but also visited hospital and support them financially for medicine. Sometime, I participated with organization to collect money for needy people as affected by food scarcity and food in the society".*

> *[Interviewee nine]*

A calling to male as a helping relationship was described by a 28-year-old single business man who is eating food with parents at home. He stated his helping motivation to be a helping personality was in response to answering a calling from God:

> *"First of all,.my nurturing has been done to help eat other in the society.…. Therefore, I want to support the people who are living in my surroundings. Actually, we considered that we are leading our dependent lives in this world…… However, we are dependent on others either we are enough strong financially in our lives. I like the philosophy to aid people then I could get help from other if my financial condition gets bad in future. In this connection, I keen observers about the circumstances of my friends to help out in their lives…. I feel uncomfortable when somebody told me that family have food security…. That time I want to give food. Same as, in the sickness of other I support financially".*

> *[Interviewee eleven]*

Relationship Altruistic Self

Last main theme of this study extracted out is time altruism. Informants said that they have sacrificed their families, social relationships, friends just for helping homeless people, those people who are affected by floods. Needs food or shelter like home. Responses of informants are as under

> "*during my visits to different people for charity purpose and helping homeless people one day I reached home very late. I saw my kids were watching TV and surfing internet at inappropriate time. My family is getting affected due to charity and homeless people. The time my kids need I am giving to other people".*

> *[interviewee seven]*

Another respondent said…

> "I *was not present in good and bad days with my families, relatives and friends. I cannot keep my promises".*

[Interviewee ten].

In conclusion, the qualitative data indicated that the household food consumers have altruistic self with ten themes, such as, happiness, helping, charity, showing directions, fund raising, giving, benefits, look after others during floods and homeless people and shown in table 2. In prior study these themes are already existed in Tapia-Fonllem et al. (2013) altruistic behavior scale with 20 items. However, the qualitative study strengthens the scale of that with 10 items by Tapia-Fonllem et al. (2013).

5. RESULTS AND DISCUSSIONS

The altruistic self-concept scale is developed using 10 items. These 10 items have gone through the exploratory factor analysis (EFA) procedure. The EFA procedure found only five items fulfilled the basic criteria of EFA. Thus, the combination of ALS_6, ALS_7, ALS_8, ALS_9, and ALS_10 items labeled as "Altruistic Self-concept" (Tapia-Fonllem et al., 2013). The internal reliability measure using Cronbach's Alpha was 0.82; this is consistent with Tapia-Fonllem et al. (2013) and Corral et al., (2008). Numerous researchers also found the single factor solution of altruistic behavior which was better fit for their studies (Rushton, Chrisjohn and Fekken, 1981; Krueger, Hicks, and McGue, 2001; Eisenberg et al., 2002). In the present study, a single factor solution of altruistic self-concept found during an exploratory factor analysis process that was best fit. Moreover, study combined the existed scales of Tapia-Fonllem et al. (2013) and Correl et al. (2008) for consumer altruistic self-concept scale in socially responsible plate food consumption perspective in Malaysian context.

Based on the observation of authors in the current study, altruistic self-concept has been seen as a one factor solution with five items that best fits the data. As, Rushton, Chrisjohn and Fekken, (1981), Krueger, Hicks, and McGue, (2001) and Eisenberg et al. (2002) developed the scale of altruistic self by labeling the altruistic personality. However, all the earlier scales of altruistic constructs were rotated on single factor solution with different number of items and context.

6. IMPLICATIONS

The contribution to the knowledge in this study shown into two perspectives like theoretical implication and managerial implication which has been discussed below:

6.1.   *Theoretical Implications*

The main contribution of current study is the conceptualization and validation of altruistic self towards socially responsible plate food consumption in theory of symbolic interactionism. As per literature evidence, there were four types of consumer self-concepts; actual self, ideal self, social self, and ideal social self-concept had been utilized in consumer behavioral studies (Li, 2009; He & Mukherjee, 2007; Malhotra, 1988). Moreover, the debate of consumer self-concept in the existing literature is limited to product brands in various industries such as automobile, real estate and tourism (Birdwell, 1968; Hong & Zinkhan, 1995; Ericksen, 1996; Kressmann et al, 2006;

Jamal and Al-Marri, 2007; Li, 2009; Chon, 1992; Litvin&Goh, 2002; Litvin&Kar, 2004; Beerli et al., 2007). This study validated the self-concept named as altruistic self in consumer self-concept in socially responsible food consumption for social change. This study also contributed through research methodology by using mix methods pragmatism pluralism. However, in the lens of qualitative method study explored the sub-dimensions of altruistic self, such as: material, psychological, time and relationship. Whetten (1989) elaborated that the theoretical contribution takes place when theory reveals which we otherwise had not seen, known or conceived. Accordingly, present study not only extended the theory of symbolic interactionism with altruistic self but also gave the extension to the self-congruence theory in consumer behavior. Similarly, this study contributed to social marketing. This research is the first to empirically validate the consumer altruistic self for social change towards socially responsible plate food consumption.

6.2. *Managerial Implications*

Consumer self-concept is a multidimensional construct which has been frequently utilized in consumer behavioral studies – has practical implication in the commercial marketing industry among Western context (Hosany & Martin, 2012). As it is evidence from the self-concept literature like four dimensions of self-concept i.e. actual self, ideal self, social self, and ideal social self for changing the consumer behavior towards brands image or intension (Kressmann et al., 2006; Jamal & Al-Marri, 2007; Sirgy et al., 1997; Birdwell, 1968) and all studies focus on consumer self-congruence between consumer self-concept and consumer brand image (Li, 2009; Jamal & Al-Marri, 2007; Sirgy et al., 1997; Birdwell, 1968). Improvements are possible to the consumer self-concept from commercial marketing to social marketing with changing attitude and behavior. Hopefully, scholars and managers who are struggling for social change with respect to plate food waste minimization take steps to enhance the altruistic self-concept among consumer.

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