Buying Meat for Family in the Collectivist Culture: An Application of the Theory of Planned Behavior

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Abstract

The dual purpose of this paper is to test the effects of the constructs of the theory of planned behavior (TPB) in the case of buying for group like family and to examine the moderating effects of collectivism. The data was collected from 1834 spouses from all four provinces in Pakistan. Hierarchical multiple regression analysis was used to test the theorized relationships of the model. Results maintained significant association of all psychographic variables with meat buying intention of spouse. Results also brought an evidence of collectivism as significant moderator. Considering only urban families put limitation on the generalization of its findings. More research is required to integrate other behavioral variables in TPB. The results are of great value for academic researchers in terms of integrating collectivism with TPB. Study provided an understanding for marketing managers about meat buying decision-making in the collectivist culture and buying for group. This paper fulfills a documented need to study TPB in the context of buying by an individual for relationships like family in the collectivist culture.

Keywords: Theory of planned behavior, attitude, subjective norms, perceived behavioral control, collectivism, meat buying intention

Introduction

Fundamental cultural differences exist across the world with respect to dietary habits and food consumption. One of the important foods consumed by families in the eastern culture and especially in Pakistan is meat. The family taste, choice and preferences vary with respect to their cultural and socio-demographics factors (Solomon, 2009). Buying food for family is different than individual food buying behavior because the decision makers do not buy food for themselves but for the whole family (Ottar & Grunent, 2010). Food buying behavior in family is not an individual phenomenon, but requires decision makers to recognize feelings of others and to meet the expectation of other family members (Olsen, & Tuu, 2013). It is also important to consider that what explain food buying behavior in different cultures (Olsen *et al*., 2008). During the past five decades, dramatic change in the food consumption patterns was observed at global level. Major shifts in the diet and nutritional was noted by many studies (Vranken *et al*., 2014).Changes in the food consumption patterns were also noticed in Asia. In the past two decades Asians have adopted more processed food and food of animal origin (Sheng, *et al*., 2010). Based on these changes and trends in the food market, it is

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imperative to expand the understanding of the food buying behavior in family due to the marketing challenges that marketers are facing in the regional and global food market (Freedman, 2016). Hardcastle & Blake (2016) also recommends that future studies should focus on changing attitudes and habits in the area of food consumption by families.

The latest Family Income and Expenditure Survey (HIES, 2013-14) of the Government of Pakistan has reported certain recent trends i.e. decreasing trend in the family size, more wealth concentration in urban areas as compared to the rural areas; changes in level of education and significant increase in expenditure on food. During the period of 2000-2014, the data of HIES reported significant increase in meat consumption. Intention to buy meat for family is determined by number of factors. Pakistan is an emerging consumer market but very little is known about the factors that determine the intention to buy meat by the spouse for family. Kearney (2010) remarked that consumption of meat is country- specific phenomenon and determined by numerous factors.

Theory of planned behavior is successfully applied in large number of studies to predict food choice of individual consumers (Dowd, & Burke, 2013). Very limited attention is paid to extend application of the theory of planned behavior in the context of food buying behavior of the buyer, who buys for the family. Dowd & Burke (2013) also recommend that future research could develop more comprehensive model of buying behavior by testing the possible relationship between variables of TPB and additional constructs in the domain of buying behavior. In order to comprehend the changes in the meat buying intention of spouse for family, it is therefore imperative to identify the factors that determine meat buying intention of spouse in family. These fundamental changes that have occurred during the last fifteen years in the food consumption in general and specially in the collectivist culture of Pakistan, call for answer to the following questions:

RQ 1: What TPB variables determine the meat buying intention of the customer that buys meat for family?

RQ 2: Does collectivism moderate the link between psychographic variables and meat buying intention in the TPB?

This study aims to investigate the predictive power of psychological variables in explaining the buying intention of spouse's to buy meat for family. The study also aims at integrating collectivism in the TPB. Furnols & Guerrero (2014) believe that meat buying behavior is complex issue, but understanding it can help meat industry to bring marketing strategies that may enhance competitiveness and increase market share. Therefore results will also guide marketing decision makers to bring effective formulation and implementation strategies to the meat market in Pakistan.

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Literature review

Meat Consumption

The most frequently consumed product in families is food. Making choice of food for the family is a complex issue that is related to the product, the consumer and perspective (Hough, & Sosa, 2015). The food buying decision-making within a family is affected by many factors like the family dynamics, psychographics, demographics, resources, preferences and expectations (Beagan & Chapman, 2004). Meat is considered an essential source of protein in diets in all parts of the world (Verbeke et al., 2010). Increasing meat consumption is an indicator of improved spending power and an evidence of strong eating meat behavior for nutrition and pleasure (Gandhi & Zhou, 2014). Therefore it is the more frequently purchased food by families to meet protein requirements of the family members in Western and Eastern countries (Furnols & Guerrero, 2014).

Kubíčková & Šerhantová (2005) investigated the effect of price and non-price factors on the consumption of meat and meat products. The results of the secondary data analysis confirmed the change in meat consumption among Czech consumers because of health consciousness. Ortega, Wang & Eales (2009) analyzed meat demand in China and concluded that red meat consumption is gaining importance in the food of Chinese. de Andrade, de Sobral, Ares, & Deliza (2016), examined Brazilian consumers' perception of lamb meat and found strong association between lamb meat consumption and eating occasions. McCarthy et al. (2003), explored the influence of attitude and subjective norms on the beef buying intention and found significant effect of both attitude and subjective norm on the beef buying intention of Irish adults.

Berndsen & Pligt, (2004) discovered that attitude and subjective norm, and ambivalence are the predictors of current meat consumption. The study is limited to the consumption of meat by individual consumer. Vukasovicˇ, (2012) analyzed the poultry meat markets and results have shown that meat of known origin is the critical decision factor. The study is only limited to one meat type i.e. poultry and lack the underlying theory. Using qualitative methodology Kennedy, Stewart-Knox, Mitchell, & Thurnham, (2004) noted that product appearance, freshness, sensory and health related factors are the important indicators of meat quality. The study is qualitative, considered one meat type and lacks the underlying theory to explain consumption behavior.

Theory of Planned Behavior

The most widely used theory to explain behavior and change in behavior is Ajzen, 1985;Ajzen & Fishbein, 1980's theory of planned behavior (TPB). Theory of planned behavior is a theoretical foundation for this study.

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Large number of studies provides empirical evidence to support its predicative capacity of human behaviors in different context (Fennis, Adriaanse, Stroebe, & Pol, 2011; Motyka *et al*., 2014). The underlying principle of the theory of the planned behavior is that behavioral intentions are the outcome of the interplay of how the decision maker evaluate the outcomes of the behavior (attitudes), the social pressures the decision maker perceives (subjective norms) and belief of the decision maker about availability of sufficient resources and opportunities to perform the behavior (perceived behavioral control) (Collins & Mullan, 2011).

Buying Intetnion

Collins & Mullan (2011) noted that intention to perform a behavior is a significant predictor of actual behavior. Consumers repeat to purchase products and services because they form intention to do so (Wood & Neal, 2009). The notion of buying intentions reveals consumers' likely behavior in short-term future buying decisions and is a measure of the strength of a decision maker drive to execute a specific behavior in future (Fishbein & Ajzen, 1975; Fandos & Flavia´n, 2006; Berndsen & Pligt, (2004). Intention is predicted by three independent antecedents i.e. attitude towards the behavior (ATT), subjective norms (SN), and perceived behavioral control (PBC) (Ajzen, 1991). TPB can be expressed in the following equation (Verbeke & Vackier, 2005).

$$BI = \alpha_0 + \alpha_1 ATT + \alpha_2 SN + \alpha_3 PBC$$

Theory of planned behavior claims that human behavior is a function of the beliefs human being hold about the object or action to be taken. These beliefs are measured to and considered the determinants of an individual's intentions and actions. The beliefs individual hold about the object are of three kinds i.e. behavioral beliefs that influence attitudes, normative beliefs that are the determinants of subjective norms and control beliefs that determine the perception of behavioral control (Ajzen, 1991). It was concluded in the Ajzen (1991) that we learn about the unique factors that prompt behavior of a person on the level of beliefs a person hold. It is the underlying foundation of beliefs to which the theory of planned behavior traces attitudes, subjective norms, and perceived behavioral control about the behavior. The expectancy-value model is the most widely accepted view, and received sufficient support to describe human behavior in terms of beliefs (Ajzen, 1991).

Attitude

Negative or positive evaluation to perform certain behavior is referred to as attitude of the person (Neal, Quester, & Hawkins, 2005). Psychologists generally consider attitude formation as the outcome of cognitive processing (Ajzen, 1991). Fishbein & Ajzen's (1975) expectancy-value model states that it is the beliefs of the people about the attitude object that makes them develop their attitude. The constructs of attitude towards buying behavior is an

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evaluation of a particular purchase of particular product with some degree of favor or disfavor (Zhou, Thøgersen, Ruan, & Huang, 2013). The attitude in turn forms behavioral intention that determines readiness of the decision maker to perform a specific behavior (Ajzen, 2002). Many studies have revealed the noteworthy influence of attitude towards intention (Alam & Sayuti, 2011; Zhou, Thøgersen, Ruan, & Huang, 2013; Ferdous & Polonsky, 2013).

Fishbein behavioral model is the most widely used model in the marketing literature for measuring attitude (Wu, 2003). The attitudes towards an object in the Fishbein model can be derived on the bases of the person's belief and feelings about a particular object. TPB states that, attitudes are calculated by taking product of the strength of each behavioral belief by the subjective evaluation of the belief's trait (Verbeke & Vackier, 2005). Overall attitude of a person is the product of the strength of the evaluative belief (E) and its importance (I_E) about the attributes of the product and strength of affective belief (A) about the product and its importance (I_A) (Verbeke & Vackier, 2005; Wu, 2003). The attitude (ATT) towards meat can be represented by the following equation and this calculation of the attitude (ATT) of the TPB is referred to as indirect measures (Verbeke & Vackier, 2005):

$$ATT = \sum E_i \times I_{Ei} + \sum A_i \times I_{Ai}$$

According to Ajzen (1991) this summative belief index is directly proportional to the attitude of a person and provides a good estimate of the attitude itself. Based on Fishbein model and support provided by the extant literature this study put forward the following hypothesis:

H_1: *Attitude of spouse towards meat significantly influences meat buying intention.*

Subjective Norms (SN)

Consumption behaviors are directly or indirectly shaped by the people with whom we have relationship (Simpson, Griskevicius, & Rothman, 2012). Subjective norms are the assessment of a person about thinking of people to whom he or she is closely related to perform a particular behavior (Ajzen & Fishbein, 1980). Influence of SN on buying intention is wel documented in the literature (Cheng, Tsai, Cheng, & Chen, 2011; Zhou, Thøgersen, Ruan, & Huang, 2013; Al-Swidi, Huque, Hafeez, & Shariff, 2014). SN is a measure of person's perception of the social pressure and his or her motivation to comply with it (Fishbein and Ajzen, 1975; Bagozzi, Wong, Abe, & Bergami,2000). The subjective norm is found by the taking product of the strength of each normative belief, and motivation of the person to comply with it and this calculation of (SN) is reoffered to as indirect measure of this construct in TPB (Verbeke & Vackier, 2005). Overall (SN) of a person is the product of the scores of the perceived social norms (S) and motivation to comply (M_S) with

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it and product of personal norms (P) and motivation to comply with it (M_P). The equation provided in the following represents measure of the (SN) for meat.

$$SN = \sum S_i \times M_{Si} + \sum P_i \times M_{Pi}$$

Based on the arguments provided by the Fishbein & Ajzen and support of the available literature, following hypothesis can be developed:

H_2: *Subjective norms of the spouse significantly influence spouse's meat buying intention.*

Perceived Behavioral Control (PBC)

Perception of the person, which he or she lacks time, money and skills will lead to very trivial intention to perform the behavior, irrespective of the prevailing objective conditions (Ajzen, 1989; Zhou, Thøgersen, Ruan, & Huang, 2013). A person's perception about his or her own ability to perform certain behavior is referred to as PBC (Aertsens, Verbeke, Mondelaers, & Huylenbroeck, 2009). Results of the Zhou, Thøgersen, Ruan, & Huang (2013) revealed singinficant variation into intention due to PBC. PBC is a measure of person's perception of control belief (C) about buying and perceived power (P) of the belief. Perceived behavioral control (PBC) is the sum of the product of each control belief of the individual with his/her perceived power of the certain control aspect to enable or prevent performance of the behavior. This calculation of the PBC construct of the TPB is referred to as indirect measure (Verbeke & Vackier, 2005). Overall PBC of a person is the sum of the product of the scores of the perceived control belief (C) and perceived power (P) of the belief. The following equation provides in the measure of the perceived behavioral control for meat.

$$PBC = \sum C_i \times P_i$$

Massive literature is available that validate the relationship between PBC and intention (Aertsens, Verbeke, Mondelaers, & Huylenbroeck, 2009; O'Connor & White, 2010; Bang, Odio, & Reio, 2014). Consistent with the available literature this study expects that increase in perceived behavioral control will lead to more favorable intention towards meat. The study put forward the following hypothesis

H_3: *Perceived behavioral control of spouse significantly influences his/her meat buying intention.*

Collectivism

The theory of planned behavior aims to measure behavioral intentions, measures attitude toward the act of buying, recognizes the power of other people to influence what we do and power of behavioral control. There are still impediments in predicting behavior using the model of TPB. The theory of trying states recognizes that additional factors might intervene between the variables of TPB (Solomon, 2009). One important factor that may intervene is culture. Asian countries in general and Pakistan in specific is recognized for its collectivistic culture (Shi & Wang, 2011). The value of

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collectivism motivates the decision makers to make an effort for the collective benefit rather than preferring individual welfare. Literature on collectivism consider at as the most important differentiating factor of social behavior (Hong & Lee, 2012). In general, people belonging to collectivistic cultures tend to be more interdependent and group-oriented as compared to those who belong to individualistic cultures (Kim & Choi, 2005). The fact that collectivist culture depicts different buying behavior is confirmed by several studies in the available literature (Kacen & Lee, 2002; Kim & Choi, 2005; Wang, Zhang, Zang, & Ouyang, 2005; Lee & Kacen, 2008; Jalees, 2009; Yoo & Donthu, 2005).

Testing collectivism as moderating variable, the study of Hong & Lee(2012) concluded that the effect of collectivism to trust and satsifaction on their relatonship to cross buying itention is somewhat different in Korea and Taiwan. Kacen & Lee (2002) analyzed the moderating effect of culture in their study about impulse buying behavior. Based on the argument in the available literature the study tests the following hypothesis

H_{4abc}: *The relationship between psychographics and meat buying intention is moderated by collectivism.*

Based on the review of extant literature to test the hypothesis the following theoretical model is proposed.

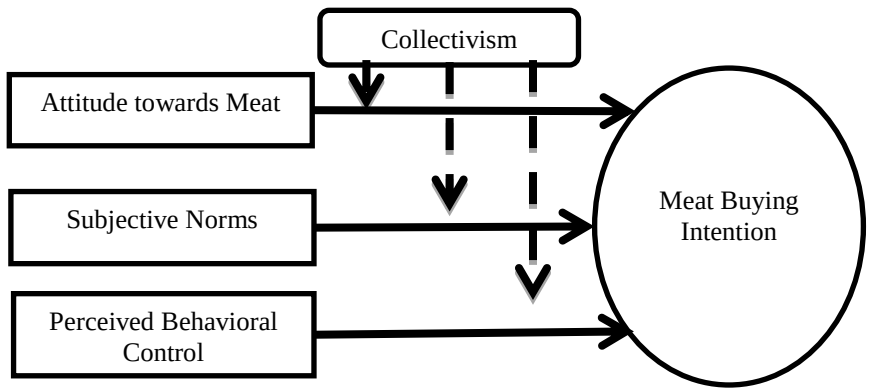

Figure 1: Theoretical Model

Methodology

The study adopted a deductive approach (Saunders, Lewis, & Thornhill, 2007). Cross-sectional in its nature, the study tests theoretical hypotheses on the bases of empirical data which is predominantly used in positivistic approach. The target population of the study is the families living in major urban areas of Pakistan. The sample unit of analysis is either spouse who makes decision of buying meat for the family. Convenience sampling technique was applied to collect data (Henley *et al.*, 2011).

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Data for this study come from a nationwide survey by distributing questionnaires to 3600 families in 18 cities of the four provinces of Pakistan (Yildirim, I., & Ceylan, M., 2008). Questionnaire was distributed personally through focal persons in each province and different cities (Chan and Tsang, 2011) during December, 2015 to March, 2016. The sample size was calculated by taking confidence level of 95%, response rate of 50% and a margin of error of 2.5% (Kotrlik, & Higgins, 2001) using the following formula:

$$SS = \frac{Z^2 * (p) * (1-p)}{c^2}$$

A nationwide survey in all four provinces of the country was launched in December 2015 to collect data for this study (Yildirim & Ceylan, 2008). Total number of questionnaires received was 2313. After discarding incomplete or blank questionnaires finally data of 1835 questionnaires was considered for analysis.

The Questionnaire was divided into two major sections i.e. demographics and psychographics. Vukasovic (2010) considered gender, age,region, education level, marital status, profession, size of family, number of children and monthly income as socio demogrpahic variables in her study of buying decision process for poultry meat. Chang, Chou, & Lo (2012) analyzed the effect of gender, age, occupation, education and income as deomographics on consumer's online food group-buying satisfaction and confirmed their effect. The second section of questionnaire included measures of intention, attitude, SN, PBC and collectivism. The measures used in this study are adapted from existing and validated measures (Ajzen and Fishbein, 1980; Zhou, Thøgersen, Ruan, & Huang, 2013; Al-Swidi, Huque, Hafeez, & Shariff, 2014; Yoo & Donthu, 2005; Jalees, 2009, Verbeke & Vackier, 2005).

Indirect measuring scales for the TPB variables were adopted as proposed by the TPB. It is reported in the literature that high correlation between direct and indirect measures of th TPB variables make indirect measure as the valid measures of the TPB construct (Verbeke & Vackier, 2005). The construct of intention was considered as the behavioral change in the future. Meat buying intention was measured by asking participants to express their intention of buying meat (buying meat in the near future, same, less or more quantity of meat) in four items on a 5 point scale of "extremely unlikely" to "extremely likely".

Direct measuring attitude was performed by taking four items of evaluative beliefs (Healthiness, Nutritional value, Trustworthiness, Safety) and three items affective beliefs (Taste, Variety, Excitement) by five point Likert scale. Participants were asked to indicate the importance of each evaluative belief and affective belief on a five point scale of "Totally

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unimportant" to "Very important". Indirect measuring of attitude was conducted by taking product of each evaluative belief and affective belief with their respective judgments of the respondent and then taking sum of these products. The direct measure of subjective norms comprised of five items measuring social norms and three items of personal norms on five point Likert scale of "Totally not agree" to "Totally agree" respectively. The items measuring motivation to comply with social norms and personal norms consisted of five items and three items respectively on five point Likert scale anchored in "Totally unimportant" to "Very important". Each social norm and personal norms was then multiplied by their respective respondent's rating of their motivation to comply with these norms for the purpose of taking indirect measure of the construct of subjective norms. All products were then summed up.

The direct measure of Perceived Behavioral Control was measured by asking participants to indicate their control belief in four items on the five point Likert scales of "Strongly Disagree" to "Strongly Disagree". Perceived power on the control beliefs of participants was measured by 4 items on five point Likert' scales of "Strongly Disagree" to "Strongly Disagree". Each control belief response was multiplied to each perceived power response to obtain indirect measure of PBC. The products were summed up later on. The scales were adapted from Ajzen & Fishbein (1980); Verbeke & Vackier (2005); Cheng, Tsai, Cheng & Chen (2011); Grønhøj, Bech-Larsen, Chan, & Tsang (2012); Zhou, Thøgersen, Ruan, & Huang (2013), Al-Swidi, Huque, Hafeez & Shariff, (2014). Bang, Odio & Reio (2014). Collectivism is the level at which a person values, cohesiveness, faithfulness, and pride, in their families. Collectivism was assessed by asking respondents to rate three items on a five point Likert scale, anchored in (1) strongly disagree (5) strongly agree. The items include "respect for the decisions made by family", "maintaining harmony in family" and "following the norms and value of family". The scale is adapted from the studies of Kim & Choi (2005) Yoo & Donthu (2005) and Jalees (2009).

After designing (Ajzen, 2006) the questionnaire it was translated into Urdu, the national language of Pakistan. Blind parallel translation technique was employed. For statistical analysis of the data SPSS software is used. Various statistical tests like Cronbach α for inter item consistency and bivariate correlation, linear regression, multiple regressions, ANOVA; tests were applied (Yildirim & Ceylan, 2008). The generalized linear regression model and hierarchical multiple regression model was employed to examine the main direct determinants of meat purchase intention, meat purchase behavior and mediation and moderation effect (Liobikienė *et al.,* 2016; Dowd & Burke, 2013). Most studies (Grønhøj *et al.,* 2013; Kuijer & Boyce, 2014;

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Yadav & Pathak, 2016) testing the theory of planned behavior used regression model.

Results

More than one-half (57.7%) of the spouses who took part in this study were husbands and (42.3 %) of the respondents were wives. Average monthly incomes of the majority of the families (37.6 %) were in the range of Rs.20000-Rs.50000. Incomes in the range of Rs.50000-Rs.100000, were (25.7%), in the range of Rs.10000-Rs.20000,were (18.6%), in the range of more than Rs.100000, were (14.9%) and in the range of less than Rs.10000, were (3.3%). Both types of families were equally represented in the sample. Nearly on half of the families (49.9%) were traditional families and one half of the families (50.1%) were modern. Frequency distribution of spouses' level of education showed that the largest group (34.4%) had education level of master or above, followed by bachelor level education (30.5%), intermediate level of education (17.1) and matriculation level of education (11.0%). Very smaller proportions of the spouses' had an educational level of primary or illiterate (4.8%, 2.2%) respectively. The distribution of the respondents with respect to the province showed that 22.7% were from Baluchistan, 20.2% from KPK, 41.9% from Punjab and 15.2% from Sindh.

Results reported in Table1 shown 0.9 value of Cronbach's α for all items of the questionnaire which is an excellent consistency of the scale. Cronbach α for all variables fall within the excellent, good and acceptable range of the recommended levels (George & Mallery, 2003).

Table 1. *Summary of Reliability Analysis of Variables*

Research Variable	Number of Items	Cronbach's Alpha
Meat Buying Intention	4	0.8
Attitude Towards Meat	14	0.9
Subjective Norms	16	0.9
Perceived Behavioral Control	8	0.6
Collectivism	3	0.8
Reliability of overall Scale	45	0.9

Results reported in Table 2 shows correlation analysis of the study variables.

Table 2: *Correlation Analysis of Study Variables*

	MBI	ATT	SN	PBC	COLL
ATT	.473**	1.00			
SN	.399**	.694**	1.00		
PBC	.328**	.409**	.383**	1.00	
COLL	.172**	.324**	.320**	.227**	1.00

***. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). MBI=Meat Buying Intention, ATT=Attitude, SN=Subjective Norms, PBC=Perceived Behavioral Control, COLL=Collectivism.*

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All predictor variables had a significant zero-order correlation with meat buying intention (MBI) as shown in Table 2. Hence the sample size (1835 respondents) is quite large therefore according to the central limit theorem there is no issue of normality of the data. The collinearity diagnostic shown in Table revealed that none of the tolerance value is ≤ 0.01 and all VIF values are below 10. The values of Tolerance and VIF both fall into the recommended acceptable level.

Table 3: *Main effect of Predictors*

Predictors	*F*	R^2	ΔR^2	β	*Tolerance*	*VIF*
Model 1 *(Control Variable)*	5.87**	0.006				
Model 2 *(Direct Effect)*	124.33***	0.254	0.25***			
ATT				0.337***	.493	2.027
Evaluative Belief				0.211***		
Affective Belief				0.189***		
SN				0.107***	.506	1.975
Social Norms				0.105***		
Personal Norms				0.008		
PBC				0.145***	.809	1.236

****p< .001*, ****p< .01*ATT= Attitude, SN=Subjective Norms, PBC= Perceived Behavioral Control

Based on the Fishbein & Ajzen's (1975) model, it was expected that attitude scores, subjective norms scores and perceived behavioral control scores for meat consumption would predict the buying intention towards meat. Results in Table 3 revealed that the predictors of intention model (attitude, subjective norms and perceived behavioral control) resulted into R^2 = .254, F (5, 1829) =124.332, *p*<.001. As a whole attitude, subjective norms and perceived behavioral control explained 25.4 % of variation in meat buying intention. The impact of attitude, subjective norms and perceived behavioral control on meat buying intention provides that the results are consistent with the attitude–behavior models of Fishbein & Ajzen (1975) and Ajzen (2000).

The results of the prediction model shown in Table 3, uncovered that attitude (β = 0.337, p<.001), subjective norms (β = 0.107, p<.001) and perceived behavioral control (β = 0.145, *p*<.001) are the significant and positive predictors of meat buying intention. The results provided support for the stated hypotheses H_1, H_2, and H_3.

Results in Table 3 disclosed that spouses had strong feelings of favorableness towards meat and that in turn formed sufficient meat buying intention. Result about attitude was in line with the findings of Alam & Sayuti, 2011; Zhou, Thøgersen, Ruan, & Huang, 2013. Results in Table 3 also revealed that the two component of Attitude i.e. Evaluative Beliefs (β =0.211,

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p<.001) and Affective Beliefs (β =0.189, *p*<.001) are also the significant predictors of meat buying intention. The effect of Evaluative Belief is stronger than affective belief. Spouses' had strong tendency towards the utilitarian aspect of meat than hedonic aspect. Higher score of evaluative beliefs leading to stronger meat buying intention means that spouses' are more conscious about healthiness, trustworthiness, safety and nutritional value of meat.

Significant and positive influence of subjective norms in Table 3 revealed that spouses were feeling sufficient social pressure about embracing a meat buying behavior. Results about subjective norm was in confirmation with the results of Cheng, Tsai, Cheng, & Chen, 2011; Zhou, Thøgersen, Ruan, & Huang, 2013; Al-Swidi, Huque, Hafeez, & Shariff, 2014.The results of the two dimensions of subjective norms i.e Social Norms (β =0.105, *p*<.001) and Personal Norms (β =0.008, *p*>.05) from Table 3 disclosed that spouses' felt more pressure from family, friends and other around them to purchase meat than their own feelings about the family. Significant impact of perceived behavioral control on meat buying intention means that spouses perceived that they were able to buy meat in terms of their knowledge, judgment, making good choice and ease of availability. Result about perceived behavioral control was in line with the findings O'Connor, White, (2010); Bang, Odio, & Reio, (2014).

Results in Table 3 supported the fact that effects of the constructs (attitude, subjective norm, and perceived behavioral control) of the theory of planned behavior (TPB) on meat buying intention worked well for buying for group like family. The study also investigated if collectivism moderates, that is, either increases or decreases the causal influence of the TPB variables on meat buying intention. Computing the cross-product of the centered predictors (e.g. Attitude × Collectivism, SN× Collectivism and PBC × Collectivism), interaction terms was created for the overall regression model (Kim *et al*., 2001). Hierarchical regression analysis was carried out for the effect of interaction terms.

The results in Table 4 about the hierarchical multiple regression showed that collectivism added significant variance (ΔR^2 = 0.004, *p* <0.05) to the relationship between attitude and meat buying intention and (ΔR^2 = 0.004, *p* <0.05) to the relationship between subjective norms and meat buying intention. The results shown insignificant main effect of the interaction terms, Attitude × Collectivism (β = -0.065, *p* <0.05), and Subjective norms × Collectivism. The results supported hypothesis $H_{4a \text{ and }} H_{4b}$.

Table 4: *Moderating effect of Collectivism*

Predictors	*F*	R^2	ΔR^2	*β*
Model 1 *(Control Variable)*	5.873^{**}	*0.006*		
Model 2 *(Direct Effect)*	134.827^{***}	*0.228*	0.220^{***}	

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ATT				*0.464****
COLL				*0.020*
Model 3 *(Moderation)*	*110.202****	*0.232*	*0.004****	
ATT				*0.475****
ATT×COLL				*-0.065***
Model 2 *(Direct Effect)*	*90.395****	*0.165*	*0.159****	
SN				*0.381****
COLL				*0.048**
Model 3 *(Moderation)*	*74.509****	*0.169*	*0.004**	
SN				*0.397****
SN×COLL				*-0.214**
Model 2 *(Direct Effect)*	*62.598****	*0.120*	*0.114****	
PBC				*0.301****
COLL				*0.102****
Model 3 *(Moderation)*	*50.539****	*0.121*	*0.001*	
PBC				*0.304****
PBC×COLL				*-0.099*

****p< .001, **p< .01ATT= Attitude, SN=Subjective Norms, PBC=Perceived Behavioral Control, COLL= Collectivism*

Results in Table 4 revealed that collectivism did not add any significant variance (ΔR^2 = 0.001, p >0.05) to the relationship between Perceived behavioral control. The results shown insignificant main effect of the interaction terms, PBC × Collectivism (β = -0.099, p >0.05). The results did not support hypothesis H_{4c}. Different buying behavior is confirmed by several studies in the available literature for collectivist cultures (Kim & Choi, 2005; Wang, Zhang, Zang, & Ouyang, 2005; Lee & Kacen, 2007; Jalees, 2009; Yoo & Donthu, 2005). However in case of application the theory of planned behavior for meat in this study indicated significant moderation of collectivism for the two relations (relation between attitude and meat buying intention, and relation between subjective norms and meat buying intention).

Discussion and Implications

The dual purpose of this paper was, first to test the effects of the constructs (attitude, subjective norm, and perceived behavioral control) of the theory of planned behavior (TPB) in the case of buying for group like family, and secondly to examine the moderating effects of collectivism in the relationship between psychographics and meat buying intention.

The outcomes of the study provided robust support for the role of psychological variables i.e. attitude towards meat, subjective norms and perceived behavioral control as predictors of meat buying intention of spouse's to buy meat for their family. The results also provided support for the moderation effect of the Collectivism on the relationship of attitude towards meat with meat buying intention and relationship between Subjective Norms

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and meat buying intention. However the results did not supported the effect of the interaction term of (PBC×COLL) on the relationship between PBC and meat buying intention.

The effects of TPB variables are significant on meat buying intention. Consistent to Ajzen's (1985, 1991), attitude was depicted in this study as highest significant predictor of meat buying intention. Positive and high level of attitude of spouse means that they consider meat as Healthy food, more nutritious, trustworthy food and safe food. They also scored high on meat being a tasty, excited food and provide more variety of meals. It can be inferred that spouses with high positive attitudes seemed to have greater intentions to purchase meat in the days to come. Subjective norm was found to be another predictor of meat buying intention of the spouse's to buy meat for their family. Prediction of meat buying intention by subjective norms indicated that family members, friends, doctors & nutritionists advice, stimulation by advertising and encouragement by the food industry support the spouse's meat buying. This support may withstand the spouse's intention to buy meat. The findings are consistent with the study to the study of Alam & Sayuti (2011), Karijin *et al.*, (2007) and Kamariah & Muslim (2007).

PBC was also found to be a significant predictor of meat buying intention. More PBC means that spouse has sufficient knowledge, can make a judgment of good meat, meat is easily available and feels ease in purchasing meat. Higher PBC scores of respondents indicate that they will more likely intended to buy meat in the near future. Collectivism moderated the relationship between Attitude and meat buying intention and SN and meat buying intention. Those who are highly inclined towards collectivism have high level of attitude and thus have higher intention to buy meat for their families. Similarly collectivist spouses put great value to subjective norms and in turn increase their intention to buy meat for their families. Collectivism failed to moderate the relationship between PBC and meat buying intention. Hence PBC is the feeling about skills and resources to buy meat therefore it does not depend on culture. People in Muslim culture like Pakistan make every effort to achieve group goals rather than personal goals (Karijin et al., 2007). The findings extend the body of knowledge about TPB in terms of buying for a group like family and dependence of the relationship between psychographics and buying intention on the culture.

Practical Implications

The findings of the study provides a ground to its application in the meat market involving marketing managers of food companies, restaurants, govt. agencies looking after the food market, doctors and nutritionists and food industry.

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The study offers an enriched understanding of spouses' meat buying decision-making process. The study provides significant understandings for new marketing strategies, especially marketing communication strategies. Using the major advertising design theory of hierarchy of effects model, the results reveal that increasing awareness about healthiness of meat, nutritional value of meat, trustworthy food and a safe food that in turn increases positive attitude towards meat. Similarly the findings also provide insight into using Means-End theory of advertising to highlight consumers benefits in turn increases positive attitude towards meat. These strategies might help in increasing meat consumption.

Meat buying intention by the spouses appear to be increasing with increasing support from family, friends, doctors & nutritionists as depicted by the results in this study. The managers of food companies can benefit from this fact by designing slice of life and scientific evidence executional framework of marketing communication. Managers of food companies and restaurants can also bring cooking competition programs and recipes' of variety of meals from meat by the expert chefs on TV channels and in restaurants. Managers, need to offer sufficient opportunities to families, friends, doctors and nutritionists to join these competition and expert advises session. This participation in turn will form and sustain more favorable subjective norms, create positive attitude towards meat and bring more PBC through these experiences.

Limitations & Future Direction

The study made considerable insight into the application of TPB by drawing quantitative conclusion regarding meat buying intention of spouses in Pakistan. However the results provide limited generalization because of the non-probability sampling technique used in this study. The study recommends further research into the application of TPB in collectivist culture and especially Muslim countries. Study also recommends including more variables in the model to increase the predictive power of TPB.

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