

Buying Intention and Buying Behavior towards Chicken Meat in Pakistan: Empirical Evidence from a Consumer Survey

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Abstract

Lot of available literature discusses determinants of food consumption behavior. This study aims to provide an evidence of determinants of chicken meat consumption behavior, within a framework of the theory of planned behavior (TPB) in Pakistan. Data of the study are collected from 461 consumers through self-administered questionnaires. Multiple regression analysis is used to identify the factors that determine chicken meat buying intention and buying behavior of Pakistani consumers. The multiple regression analysis results indicate that attitude, and perceived behavioral control have positive and significant impact both on chicken meat buying intention and chicken meat buying behavior. However subjective norms failed to predict intention and behavior. The study is also limited with respect taking one meat type, single country and regression model used and thus the authors suggest use of SEM and experimental design to address the problems associated with regression models. This study contributes to and extends our understanding of the chicken meat buying behavior in the emerging consumer market of Pakistan.

Keywords: Buying behavior, Buying Intention, Consumer behavior, Attitude, Subjective Norms, Perceived Behavioral Control, Pakistan

Introduction

Consumption is a vital activity in all human societies. The most frequently consumed product is food. During the past five decades, dramatic change in the food consumption patterns was observed at global level. Major shifts in the diet and nutrition 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).

Among the food meat is considered an essential source of protein in diets in all parts of the world (Verbeke *et al.*, 2010). Meat and meat products are the most frequently purchased food to meet protein requirements in Western and Eastern countries (Furnols & Guerrero, 2014). World Live Stock report of 2011 observed that an increase of 73% in the meat consumption from 2010 to 2050 is expected (FAO, 2011). Rapid economic growth in developing countries is increasing the share of meat consumption (Delgado, 2003). Meat consumption is likely to grow in future. Due to income growth and diet

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upgrades, it is expected that meat demand in Asia, Latin America, Middle East and developing countries become double by the year 2020 (Henchion *et al.*, 2014).

Meat industry is a developing sector in Pakistan. Meat demand both inside the country and for export is consistently increasing in Pakistan. During the period of 2000-2014, the data of HIES reports significant increase in meat consumption (beef 259%, mutton by 31%, chicken by 373% and fish 66 %). Pakistan's poultry industry is the 2nd largest industry. Contribution of the Poultry meat is 28.5% to the total meat in country. Significant increase in consumption quantity of chicken meat was recorded in Pakistan.

Making choice of food is a complex issue that is related to the product, the consumer and perspective (Hough & Sosa, 2015). The food buying decision-making is affected by many factors like the psychographics, demographics, resources, preferences and expectations (Beagan, & Chapman, 2004). The increase in chicken meat consumption in the big emerging consumer market of Pakistan can be attributed to many factors, like nutritional, health value, taste, variety of meal, easy preparation, low price and many other aspects.

This context, this paper investigate the link of attitude (cognitive belief and affective belief), subjective norm (social norm and personal norm) and perceived behavioral control of consumer regarding chicken meat with their purchase intention and purchase behavior in Pakistan. Meat is the most significant food in all human societies and cultures; however research has not paid desired attention to its true societal impact (Leroy & Praet, 2015). Kearney (2010) asserts that meat consumption is influenced by several factors and these factors vary from country to country. However, research on meat consumption does not provide sufficient empirical evidence about the factors that determine meat consumption of different countries (Latvala *et al.*, 2012). Very limited research is carried out in the food sector of Pakistan (Awan, Siddiquei & Haider, 2015). This study endeavors to answer the questions:

- How do attitude and attitudinal beliefs of consumers affect chicken buying intention and chicken buying behavior?
- How do subjective norm, social norm and personal norm of consumers affect chicken buying intention and chicken buying behavior?
- How do perceived behavioral control of consumers affect chicken buying intention and chicken buying behavior?
- What role intention plays between (Attitude, Subjective Norms & PBC) and buying behavior
- What are the implications for the poultry industry?

Drawing on the extant literature, the paper aimed towards determination of the major factors which shape consumer intention and buying behavior towards chicken meat

in Pakistan. It was also aimed to compare the determinants of the major factors affecting consumer intention and buying behavior of chicken meat in Pakistan.

Literature review

Chicken Buying Behavior

Vukasovic (2010), analyzed decision making factors in the poultry meat markets of Slovenia, Bosnia Herzegovina and Serbia. Positive perception of poultry meat was revealed in the results. Using qualitative methodology Kennedy *et al.*, (2004) analyzed factors and found that appearance, freshness, sensory and health related factors are the important indicators of meat quality. Yildirim and Ceylan (2008) reported that increase in income will increase chicken meat consumption of both rural and urban consumers.

Buying behavior regarding a product is the extent to which buyers are engaged in purchasing that product. Meat buying behavior is the measure of the frequency of monthly or weekly meat purchase (Wu, 2003; Kim & Choi, 2005; Verbeke & Vackier, 2005; Vukasovic, 2010)

Chicken Buying Behavior = Weekly Frequency of chicken purchase.

The most widely used theory to explain behavior and change in behavior is Ajzen, (1985)'s theory of planned behavior (TPB). TPB (Ajzen, 1991; Fishbein & Ajzen, 1975) is a theoretical foundation for this study. Large number of studies provides empirical evidence to support its predicative capacity of human behaviors in different context (Fennis, Adriaanse, Stroebe, & Pol, 2011; Marin, Reimann, & Castaño, 2014; 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 Intention

Collins and 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 or more precisely, future prediction of consumer buying behavior is called buying intention (Fandos & Flavia'n, 2006). Behavioral intention is a measure of the strength of a decision maker drive to execute a specific behavior (Fishbein & Ajzen, 1975).

Saba and Natale (1998) claimed that Intention has significant effect on actual consumption of red, white and preserved meat. McCarthy *et al.*, (2004) investigated beef buying intention of Irish consumer and significantly predicted its impact on the actual consumption behavior of beef. Olsen, *et al.*, (2008), described and explain consumers' intention regarding to new fish product, using framework of the theory of planned behavior. Zagata (2012) confirmed significance impact ($\beta=0.21$) of buying intention on buying behavior. Gracia and Maza (2015) provided an evidence for consumer purchase intention to purchase lamb meat from a local breed in Spain. Intention is considered by the marketing managers as a key driver of long term profitability of firm, because it is the purchase intention that leads to actual behavior (Frank *et al.*, 2015). Very little is known about chicken buying intention in the meat market of Pakistan. Therefore based on the arguments presented in the stated literature the study put forward the following research hypothesis.

H₁: Chicken meat buying intention significantly influences chicken meat buying behavior in Pakistan

Attitude

Behavioral intention is determined by an individual attitude toward engaging in the behavior, social pressure felt (subjective norm) and perception regarding control over the behavior (Gracia & Maza, 2015). A comprehensive description of human behavior requires all three elements to be taken into consideration (Zagata, 2012). Menozzi, *et al.*, (2015) found 60% to 28% variation accounted for the TPB variables in the intention for traceable food choice in their two sub samples of France and Italy.

The constructs of attitude towards buying behavior is an evaluation of a particular purchase of particular product with some degree of favor or disfavor (Zhou *et al.*, 2013). Consumer's attitude towards specific type of meat influences the choice of buying (Guenther *et al.*, 2005). Hayley *et al.*, (2015) found strong negative effect of attitude towards reduced consumption of red/white meat and actual consumption. Evidence of attitude as an important precursors of behaviors has been previously been demonstrated by many studies like Monnery *et al.*, (2016) and Mallinson, *et al.*, (2016). Literature support the following hypothesis

H₁: Attitude towards chicken meat has positive impact on chicken meat buying behavior in Pakistan

The attitude in turn forms behavioral intention that determines readiness of the decision maker to perform a specific behavior (Ajzen, & Fishbein, 2002). Yadav, and Pathak (2016) also affirmed that attitude is the most significant predictor ($\beta=0.198$) of intention. Dowd and Burke (2013) reported highest beta value for attitude ($\beta=0.25$). Results of Menozzi, *et al.*, (2015) have shown the impact of attitude in France ($\beta=0.44$).

Gracia and Maza (2015), found that attitude towards the lamb meat significantly predict ($\beta=0.27$) intention to purchase lamb meat. McCarthy *et al.*, (2004), maintained that attitude influence intention ($\beta=0.74$) to consume beef, and the influence of attitude was greater than subjective norm. Many other studies (Al-Swidi *et al.*, 2014; Kim *et al.*, 2013; Zagata, 2012; Lada *et al.*, 2009) validated the impact of attitude on intention in food related behaviors. The following hypothesis can be derived.

H₂: Attitude towards chicken meat has positive impact on chicken meat buying intention in Pakistan

Attitude is significant antecedent of intention and behaviors. Attitude consists of cognitive and affective components. The cognitive components of attitudes in the case of food shows the positive or negative belief about the attributes of food like nutritional value, healthiness, trust and safety while the affective components reflect the feeling and emotions about food like taste, excitement and variety (Monnery *et al.*, 2016). Audebert *et al.*, (2006), claimed on the bases of their results that affective component is a factor that determines an individual's attitude towards meat. On the bases of support provided by the reviewed literature this study put forward the following hypothesis:

H₃: Cognitive beliefs towards chicken meat have positive impact on chicken meat buying intention in Pakistan

H₄: Affective beliefs towards chicken meat have positive impact on chicken meat buying intention in Pakistan

Subjective Norms (SN)

This has been established by consumer behavior and marketing research that subjective norm is important predictor of buyer behavioral intention (Ajzen, 1991; Baker *et al.*, 2007; Rong *et al.*, 2011).

Consumption behaviors are directly or indirectly shaped by the people with whom we have relationship (Simpson *et al.*, 2012). The subjective norm in the theory of planned behavior brings social pressure on the decision maker as what other members in the group think the decision maker should do (Lin & Huang, 2012). Influence of SN on buying behavior and buying intention is well documented in the literature (Cheng *et al.*, 2012; Zhou *et al.*, 2013; Al-Swidi *et al.*, 2014). Based on these arguments, this study put forward the following hypothesis:

H₆: Subjective norm has positive impact on chicken meat buying behavior

In their examination of consumer intention to purchase sustainably source food Liobikienė *et al.*, (2016) analyzed green purchase behavior in European Union countries and claimed that subjective norm significantly determine green products purchase intention in all countries. Several studies did find a stronger influence of subjective norm on the intention, however contrary to these findings several studies in the field of food

purchase behavior have contended that the subjective norm component is hardly capable of predicting intention (Armitage & Conner, 2001; Menozzi, *et al.*, 2015). Likewise Yadav, and Pathak (2016) also reported that subjective norm failed ($\beta=-0.045$, $t=0.759$) to determine buying intention to purchase organic food.

H₇: Subjective norm significantly influence chicken meat buying intention

There are two aspects of subjective norms, namely “social norm” and “personal norm”. Social norm refers to the external social pressure that is the belief about performing or not performing behavior because of the approval or disapproval of others. While personal norm is the feeling of an individual about the moral obligation or responsibility to perform behavior in question (Verbeke & Vackier, 2005). As the opinion of the people very close to the individual and his or her own moral obligation towards other are very strong determinant of performing or not performing a behavior therefor we put forward the following hypotheses:

H₈: Social norm significantly influence chicken meat buying intention

H₉: Personal norm significantly influence chicken meat buying intention

Perceived Behavioral Control (PBC)

Perception of a person's about his or her own ability to perform certain behavior is referred to as perceived behavior control (Aertsens *et al.*, 2009). Increase perceived control of the person who performs behavior can influence the relationship between intention and behavior (Motyka, *et al.*, 2014).

In their Study of analyzing intention to consume new fish product Olsen, *et al.*, (2008) confirmed very high significant impact of perceived behavioral control ($\beta=0.43$). Study of Verbeke and Vackier (2005) concluded that attitude, subjective norm and perceived behavioral control ($\beta=0.26$, $p < .001$) towards eating fish have positively and significant impact on intention to eat fish. Rong *et al.*, (2011) found that perceived behavioral control as the more important predictor of intention to consume the fish burger than other TPB variables in Spain and Norway. Khalek (2014) analyzed young consumer attitude towards halal food outlets in Malaysia and maintained that perceived behavioral control of young consumer significantly influence their intention to choose halal food outlet. In their analysis to understand the green purchasing behavior Liobikienė *et al.*, (2016), maintained that perceived behavioral control is an important determinant of green purchase intention. Massive literature is available that validate the relationship between PBC with intention & behavior (Aertsens *et al.*, 2009; O'Connor, *et al.*, 2010; Bang *et al.*, 2014). Consistent with the available literature this study expects that increase in perceived behavioral control will lead to more favorable intention towards Chicken. The study put forward the following hypothesis

H₁₀: Perceived behavioral control significantly influences chicken meat buying behavior

H₁₁: Perceived behavioral control significantly influences chicken meat buying intention

In the existent literature (George, 2004; McCarthy *et al.*, 2004; Gopi & Ramayah, 2007; Lada *et al.*, 2009; Meng & Xu, 2010; Ferdous & Polonsky, 2013) direct influence of the consumer's intention on the actual behavior is determined. However the significant correlations between psychographic variables (Attitude, Subjective Norm and Perceived Behavioral Control) with buying behavior and buying intention and similarly significant correlation between buying intention and buying behavior, suggest that psychographic variables (Attitude, Subjective Norm and Perceived Behavioral Control) have both direct and indirect effect on buying behavior through buying intentions. Theory of Planned Behavior also proposes that behavioral intention is determined by the three independent variables (Attitude, Subjective Norm and Perceived Behavioral Control) and intention in turn predict performance of a particular behavior (Ajzen, 1991; Fishbein & Ajzen, 2005; Zhou *et al.*, 2013). Saba & Natale (1998) found indirect effect of attitude and habit on red, white and preserved meat behavior by means intention.

However empirical research on the mediating influence of buying intention between the psychographic variables and actual behavior is quite rare. The study therefore additionally explores mediation effect of the chicken buying intention between the three constructs of TPB (i.e., attitude, subjective norm, and PBC) and chicken buying behavior.

H₁₂: Chicken meat buying intention significantly mediates between attitude and chicken meat buying behavior

H₁₃: Chicken meat buying intention significantly mediates between subjective norm and chicken meat buying behavior

H₁₄: Chicken meat buying intention significantly mediates between perceived behavioral control and chicken meat buying behavior

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

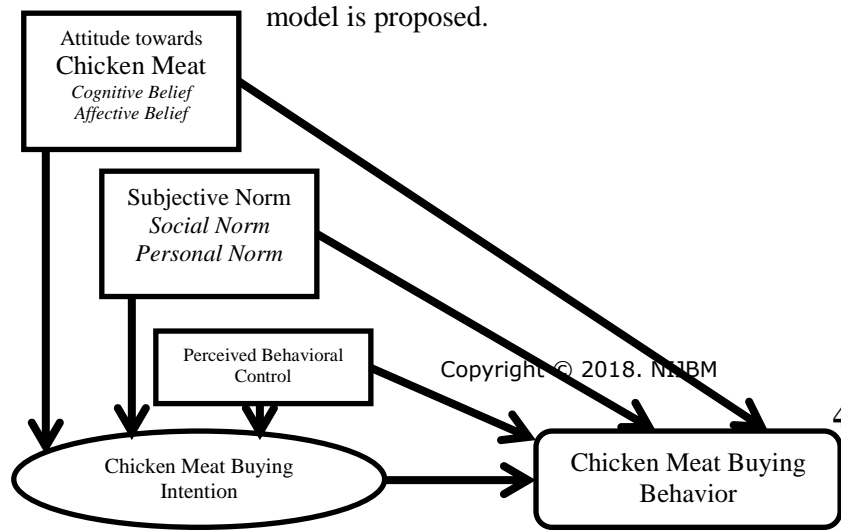


Fig. 1. Theoretical Model

Methodology

The study tests theoretical hypotheses on the bases of empirical data therefore the study adopted a deductive approach (Saunders, 2011). The study used in positivistic approach because it allows quantitative study and use of a structured questionnaire (Hammerich, 2012). In line with similar studies of Alam and Sayuti (2011), Bang *et al.*, (2014), Kuijer, and Boyce (2014) and Gracia and Maza (2015), this study is cross-sectional in its nature.

Data for this study come from a nationwide survey by distributing questionnaires to 600 families in 18 cities of the four provinces of Pakistan (Yildirim, & Ceylan, 2008). Questionnaire was distributed personally through focal persons in each province and different cities (Chan & Tsang, 2011). Total number of questionnaires received was 513. After discarding incomplete or blank questionnaires finally data of 461 questionnaires was considered for analysis.

The measures used in this study are adapted from existing and validated measures (Ajzen & Fishbein, 1980; Zhou *et al.*, 2013; Al-Swidi *et al.*, 2014; Yoo & Donthu, 2005; Jalees, 2009). After designing (Ajzen, 2006) the questionnaire it was translated into Urdu, the national language of Pakistan. Blind parallel translation technique was employed.

Buying behavior regarding a product is the extent to which buyers are engaged in purchasing that product (Wu, 2003; Verbeke & Vackier, 2005; Kim & Choi, 2005; Vukasovic, 2010). Frequencies of chicken meat purchases are taken as a measure of the chicken meat buying behavior. The single item measure of chicken meat buying behavior was adapted from the study of Vukasovic (2010), Verbeke & Vackier, (2005) and Menozzi *et al.*, (2015).

Measure of the chicken meat buying intention was adapted from Ajzen and Fishbein, (1980); Cronin, Brady, and Hult, (2000); Berndsen and Pligt, (2004); Verbeke and Vackier, (2005); Chang and Tsang, 2011 *et al.*, (2011); Walsh *et al.*, (2012); Zhou *et al.*, (2013) and consists of 4 items on 5 point Likert scale ranging from “Extremely unlikely” to “Extremely likely”.

Attitudes towards chicken meat was measured with four items of cognitive belief (Healthiness, Nutritional value, Trustworthiness, Safety), four items of importance for each evaluative belief, three items of affective belief (taste, excitement and variety of

meals) and three items of importance for each affective belief. All items measuring cognitive beliefs include Likert-type item responses ranged from 1 indicating strong disagreement and 5 indicating, strong agreement (Gracia & Maza, 2015) . The scale was adapted from Cronin, Brady, and Hult, (2000); Berndsen and Pligt, (2004); Verbeke and Vackier, (2005); Walsh *et al.*, (2012); Zhou *et al.*, (2013) and Al-Swidi *et al.*, (2014) and Gracia and Maza, (2015).

The scale for a subjective norm is adapted from the scale used by Verbeke and Vackier, (2005); Grønhøj *et al.*, 2013; and Al-Swidi *et al.*, (2014); Bang *et al.*, (2014); Gracia and (2015); Kaushik *et al.*, (2015). Sixteen items in total measure subjective norms. Five items measured social norms and five items of motivation to comply, three items measured personal norms and three items of motivation to comply, on a five point Likert scale from “Totally unimportant” to “Very important” and “Totally not agree” to “Totally agree” respectively.

The scale of perceived behavioral control is adapted from Verbeke and Vackier, (2005); Grønhøj *et al.*, 2013; Zhou *et al.*, (2013); Kim *et al.*, (2013) and Bang *et al.*, (2014). Perceived behavioral control was measured with four items for control beliefs (knowledge, choice, availability and ease of buying) and 1 item for perceived power of each control belief. Respondent were asked to rate five items of control belief on a five point Likert scale from strongly disagree (1) to strongly agree (5). The Likert scale ranging from (1) not at all important to (2) Extremely Important was asked to measure perceive power of the respondents (Kim *et al.*, 2013).

The generalized linear regression model and hierarchical multiple regression model was employed to examine the main direct determinants of chicken buying intention, chicken buying behavior and mediation effect (Liobikienė *et al.*, 2016; Dowd & Burke, 2013). For statistical analysis of the data SPSS software is used (Yildirim, & Ceylan, 2008).

Results

A descriptive, reliability, correlation and regression analysis of the spouses buying for chicken meat has been made to identify the impact of various factors on the spouses' chicken meat buying intention and the role of intention between those factors and chicken meat buying behavior.

The sample consisted of (52.3%) husbands and (47.7 %) wives. Average monthly incomes of the majority of the families (37.5 %) were in the range of Rs.20000-Rs.50000. Incomes in the range of Rs.50000-Rs.100000, were (26.2%), in the range of Rs.10000-Rs.20000, were (17.4%), in the range of more than Rs.100000, were (15.4%) and in the range of less than Rs.10000, were (3.5%).

Frequency distribution of spouses' level of education have shown that the largest group (37.5%) had education level of master or above, followed by bachelor level education (29.3%), intermediate level of education (17.1%) and matriculation level of education (16.1%). Very smaller proportions of the spouses' had an educational level of primary or illiterate (4.1%, 3%) respectively. Frequency distribution of the respondents from four regions (Baluchistan, KPK, Punjab & Sindh) was 23.4%, 18%, 35.4% and 23.2% respectively.

Cronbach α for the questionnaire was 0.9 which is an excellent consistency of the scale. Cronbach α for measures of Intention, Attitude, Subjective Norm and Perceived Behavioral Control was 0.75, 0.87, 0.89 & 0.61 respectively. Liobikienė *et al.*, (2016) noted that value of Cronbach's alpha from 0.5 to 0.8 is suitable for generalized linear regression model.

Spearman correlation coefficient was applied to evaluate the relationship between values of TPB variables and chicken buying behavior and shown in Table 1. Descriptive statistics are also provided in Table 1.

Table 1: *Correlation between TPB Constructs & Descriptive Statistics (N=461)*

	Correlation Coefficients				Descriptive Statistics			
	CBB	CBI	ATT	SN	Mean	Std. Dev.	Skew.	Kurt.
CBB					4.420	1.106	-1.703	1.411
CBI	.399**				3.847	.716	-.633	.160
ATT	.234**	.490**			3.490	.500	-.177	.188
SN	.135**	.376**	.683**		3.245	.656	-.101	.125
PBC	.231**	.346**	.415**	.329**	3.681	.512	-.382	1.022

** . Correlation is significant at the 0.01 level (2-tailed)

All relationship of TPB variables are significant ($p < .01$) with chicken buying intention and chicken buying behavior and thus are in line with the rationality of TPB.

The arithmetic means of all study variables were compared with their scales on criteria of (High >3, Neutral =3 and Low < 3). Results in Table 1 revealed that that respondent's opinion for all variables except "subjective norm" was greater than the agreement point (>3). Subjective Norm did not fall under the category of "Low" i.e. (<3) but was found very close to the neutral point (=3).

Skewness and Kurtosis for all variables fall within the range of + 2 to - 2 and most of values also fall in the more strict range + 1 to - 1 as suggested by Garson (2012) and thus show normal distribution of the data.

The collinearity diagnostic have shown VIF values of 2.02, 1.88 & and 1.21 and Tolerance Values were 0.49, 0.53 & 0.82, respectively for Attitude, Subjective Norm and Perceived Behavioral Control. The values of Tolerance and VIF (<10) and Tolerance (≥ 0.01) both fall into the range of recommended threshold values (Faqih & Jaradat,

2015). The results pointed out that multicollinearity among the predictors of the model was absent.

Multiple regression analysis was carried out to predict chicken buying behavior with chicken buying intention.

Table 2: *Direct Effect of Chicken Buying Intention on Chicken Buying Behavior (N=461)*

Chicken Buying Intention	Chicken Buying Behavior			
	F Statistics	R ²	B	T
	86.90***	0.159	0.399	9.322

*** $p < .001$

Table 2 demonstrates the standardized coefficient of the study variable and the respective significance level. The model fitness summary for Pakistan [F (1, 459) = 86.90, $p > .001$] suggested that there is linear relationship between predictor variable and chicken meat buying behavior. The chicken meat buying intention explained substantial variance in chicken meat buying behavior in Pakistan ($R^2 = 0.159$). Results recorded in Table 2 revealed that standardized partial slope ($\beta = 0.399$, $p < .001$) of buying intention for chicken meat buying behavior is statistically significant.

Results in Table 2 provided support for hypothesis H₁. Results were consistent with the Theory of Planned Behavior (Ajzen, 1991) and in line with the theory and findings of previous studies (Collins & Mullan, 2011; Alam & Sayuti, 2011; Motyka, et al., 2014; Gracia & Maza, 2015; Faqih & Jaradat, 2015).

Multiple regression analysis was carried out to predict chicken meat buying behavior with attitude, subjective norms and perceived behavioral control. The model fitness summary provided in Table 2 suggested that there is linear relationship between predictor variables and chicken meat buying behavior.

Table 3: *Direct Effect of Attitude, Subjective Norm & PBC on Chicken Buying Behavior Chicken Buying Behavior (N=461)*

	F Statistics	R ²	β
	12.941***	0.078	
Attitude			0.205**
Subjective Norm			-0.059
PBC			0.166**

PBC: Perceived Behavioral Control. *** $p < .001$, ** $p < .01$, * $p < .05$

A significant portion of the total variation (Pakistan: 7.8 %) in chicken meat buying behavior was explained by the TPB variables. Results listed in Table 2 presented that standardized partial slope ($\beta = 0.205$, $p < .01$) for Attitude (ATT) was statistically significant. The results provided support for the stated hypotheses H₂.

Likewise results offered that standardized partial slope (Pakistan: $\beta = -0.059$, $p > .05$) for Subjective Norm (SN) was statistically insignificant. The results did not support the stated hypotheses H₆.

Similarly results also disclosed that standardized partial slope (Pakistan: $\beta=0.166$, $p < .01$) for Perceived Behavioral Control (PBC) was statistically significant. The results provided support for the hypothesis H₁₀.

Multiple regression analysis was carried out to predict chicken buying intention with attitude, subjective norms and perceived behavioral control. The model fit summary have shown that $F(3, 457) = 55.473$ with a $p > .001$ for predicting variables (Attitude, Subjective Norms and Perceived Behavioral Control). The model fitness summary was found significant. The model fitness summary suggested that there is linear relationship between predictor variables and chicken meat buying intention.

Results in Table 4 revealed that the predictors of intention model (attitude, subjective norms and perceived behavioral control) explained 26.7 % of variation in chicken buying intention. Results are consistent with Fishbein and Ajzen's (1975) model and Ajzen, and Fishbein (2000).

Table 4: *Direct Effect of Attitude, Subjective Norm, PBC, Cognitive Belief, Affective Belief, Social Norm & Personal Norm on Chicken Buying Intention (N=461)*

		F	R ²	β
		55.473***	0.267	
Attitude				0.376***
	<i>Cognitive Beliefs</i>			0.159**
	<i>Affective Beliefs</i>			0.278**
Subjective Norm				0.064
	<i>Social Norm</i>			0.033
	<i>Personal Norm</i>			0.060
PBC				0.169***
PBC: Perceived Behavioral Control.		*** $p < .001$, ** $p < .01$, * $p < .05$		

The results of the prediction model shown in Table 4, uncovered that attitude ($\beta = 0.376$, $p < .001$), and perceived behavioral control ($\beta = 0.169$, $p < .001$) are the significant and positive predictors of meat buying intention but subjective norms ($\beta = 0.064$, $p > .05$) is not significant predictor of chicken meat buying intention. The results provided support for the stated hypotheses H₃, H₄, H₅, and H₁₁ but not for H₇, H₈ and H₉.

Results in Table 4 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 and Sayuti, 2011; Zhou, Thøgersen, Ruan, and Huang, 2013. Results in Table 2 also revealed that the two component of Attitude i.e. Cognitive Beliefs ($\beta = 0.159$, $p < .01$) and Affective Beliefs ($\beta = 0.278$, $p < .001$) were also the significant predictors of chicken meat buying intention. The effect of affective Belief was stronger than Cognitive belief. Spouses' had strong tendency towards the hedonic aspect of chicken meat than utilitarian aspect. Higher score of affective beliefs leading to

stronger meat buying intention means that spouses' are more conscious about taste, excitement and variety of meals of chicken meat.

Insignificant influence of subjective norms ($\beta = 0.064, p > .05$) in Table 4 revealed that spouses were not feeling sufficient social pressure about embracing a chicken meat buying behavior. Results about subjective norm was in confirmation with the results of (Gracia & Maza, 2015) as there is mixed support for the effect of subjective norm (Armitage & Conner, 2001; Menozzi, *et al.*, 2015).

Significant impact of perceived behavioral control on chicken meat buying intention means that spouses perceived that they were able to buy chicken 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 and White (2010); Bang *et al.*, (2014).

Results in Table 4 supported the fact that effects of the constructs (attitude and perceived behavioral control) of the theory of planned behavior (TPB) on chicken meat buying intention worked well for buying for group like family except for the construct of subjective norm.

Most of the studies (George, 2004; McCarthy *et al.*, 2004; Gopi & Ramayah, 2007; Lada *et al.*, 2009; Meng & Xu, 2010; Ferdous & Polonsky, 2013; Frank *et al.*, 2015) have determined direct influence of the consumer's intention on the actual behavior. However, empirical research on the mediating impact of buying intention between the psychographic variables and actual behavior is quite rare. The study therefore additionally explored mediation effect of the meat buying intention between the two constructs of TPB (i.e., attitude and PBC) and chicken meat buying behavior.

Regression tests were carried out to test for the mediation effect of the meat buying intention between the predictor variables (Attitude, Subjective Norms and Perceived Behavioral Control) and dependent (Chicken Meat Buying Behavior) variable (Baron & Kenny, 1986).

Results in Table 2 revealed that there is direct effect of only two predictor variables (Attitude and Perceived Behavioral Control) on the explained variable of (Chicken Meat Buying Behavior). Similarly results in Table 4 shown that (Attitude and Perceived Behavioral Control) significantly predict chicken meat buying intention. All conditions for mediation were satisfied by these results. However the effect of Subjective Norms (SN) on chicken Buying Behavior, chicken buying intention was found insignificant. Therefore according to (Baron & Kenny, 1986) only these two predictor variables (Attitude and Perceived Behavioral Control) were considered for mediation test.

Results for the mediation analysis of Meat Buying Intention between Attitude (ATT)/Subjective Norms (SN)/Perceived Behavioral Control and Meat Buying Behavior are listed in Table 5 below.

Table 5: Mediation Effect of Chicken Buying Intention (N=461)

		F Statistics	R ²	ΔR ²	β
Main Effect		18.952***	0.076		
	Attitude				0.166**
	PBC				0.163**
Indirect Effect					
Step 1	Chicken Buying Intention	86.900***	0.159		0.399***
Step 2		31.045***	0.164	0.093**	
	Attitude				0.017
	PBC				0.101*

PBC: Perceived Behavioral Control. *** $p < .001$, ** $p < .01$, * $p < .05$

The overall equation was significant; $R^2 = .076$, $F(2, 458) = 18.952$, $p < .001$ for the first model and $R^2 = .164$, $F(3, 457) = 31.045$, $p < .001$. Mediator (MBI)'s relationship with Chicken Buying Behavior remained significant even while controlling for predictor variables (ATT and PBC); $\beta = 0.355$, $t = 7.147$, $p < .001$.

The results in Table 5 had shown that the mediator (Chicken Meat Buying Intention) added significant variation ($\Delta R^2 = .093$, $p < .001$) to the variance accounted for in the chicken meat buying behavior between predictors (ATT and PBC) and Chicken Meat Buying Behavior. The relationships between predictor i.e. Attitude (ATT) and Chicken Buying Behavior became insignificant ($\beta = 0.017$, $t = 0.340$, ns) and for predictor (PBC) variables and Chicken Buying Behavior was found weaker in this analysis ($\beta = 0.101$, $t = 2.124$, $p < .05$) as compared to the direct relationship ($\beta = 0.163$, $t = 3.294$, $p < .001$).

It was found that Chicken Meat Buying Intention (BBI) fully mediated the relationship between predictor (ATT) and Chicken Meat Buying Behavior and partially mediated the relationship between predictors (PBC) and Chicken Meat Buying Behavior, of Spouses. and Chicken Meat Buying Behavior was weaker in this analysis. These results had supported all hypotheses H_{12} , H_{14} but did not support H_{13} .

Discussion and implications

The objectives of this study were to examine the attitude towards and intention to purchase chicken meat in Pakistan, to identify the main determinants of intention using the theory of planned behavior (TPB) (Ajzen, 1991) and to improve the TPB model by incorporating mediation effect of buying intention. The findings of this study could possibly improve managerial understandings of the chicken meat buying behavior of consumers in the emerging market of Pakistan.

Our study has shown that the TPB models significantly predict intention to purchase chicken meat in Pakistan. This study confirms that attitude is a significant predictor of chicken meat purchase intention as well as chicken meat purchase behavior in the context of buying chicken meat for family meals. This finding is consistent with several previous studies which found a strong positive effect of attitude on the intention and buying behavior of chicken meat. In a broader understanding, this finding is also steady with the theories of attitude suggesting a positive relationship between attitude and behavior (Ajzen, 1991; Armitage & Conner, 2001).

The identification of the key determinants of intention to purchase chicken meat that are considered precursors of chicken meat behavior, has many implications for the choice of appropriate intervention to promote chicken meat in Pakistan. As a matter of fact, the greater the relative weight of a given factor, the more likely it is that altering that factor will influence intentions and ultimately the related behavior (Ajzen, 1991). Consumers' attitude towards chicken meat is the main cause of intention and is similar to the findings of Zhou *et al.*, (2013) for organic food, Rezai, Teng, Mohamed, and Shamsudin (2012) for green products, Bonne *et al.* (2007) for halal meat, and Verbeke and Vackier (2005) for fish consumption, followed by perceptions of behavioral control to buy in Pakistan, whereas subjective norms like Several food-related studies (Armitage & Conner, 2001; Menozzi *et al.*, 2015; Olsen *et al.*, 2008;) could not predict intention.

The stated superiority of the attitudinal element over the subjective norm in determining behavioral intention is because of personal considerations of individual that dominate the influence of social pressure (Harland, Staats, & Wilke, 1999). Therefore it would seem reasonable to direct the intervention to attempt making attitudes towards the chicken meat buying behavior more favorable, such as with informative campaigns about nutritional value and safety of chicken meat, thus having effects on intentions and, consequently, behavior. However improving attitudes towards chicken meat with more informative campaigns could not be sufficient to increase chicken meat buying intention. Therefore measure should be taken to improve consumer's trust in food safety policies. Successful food safety campaigns according to Mazzocchi *et al.*, (2008) need on credible source of information like food experts, doctors and dietitians.

The above mentioned findings suggest that the selection of marketing strategies particularly marketing communication strategies should be focused on the two aspects of attitude i.e. cognitive (healthiness, nutritional value, Trustworthiness and safety) and affective (taste, excitement and variety of meal) by creating more awareness, knowledge, liking and preference on one hand and communicating effectively the hedonic aspect on the other hand. Positive attitudes towards chicken meat can also be enhanced through campaigns regarding hedonic aspect of enjoying eating chicken meat with family and in

different events of cultural importance. Thus highlighting the health benefits of meat and focusing on confirming positive meat eating experiences could develop more positive attitude of meat buyers. Government is required to confirm the compliance of the food safety regulations by the meat industry. The effectiveness of safety campaign depends on the information source. Doctors, nutritionists and food experts are trusted in Pakistan therefore their opinion as an information source may have significant effect on shaping the respondents intentions to purchase chicken meat. Another suggestion is about using advertising messages which highlight the social and cultural aspect of meat consumption in the slice of life. This strategy could be effective in improving the component of subjective norm. These measures will help consumers take a more positive attitude toward meat, will enhance their perceived behavioral control and improve subjective norm about meat. In turn it will lead to increase in their meat buying intention.

Finally, there are some limitations to this study that should be noted. The study is based on one meat type, taken convenience sample from only one country and single respondent. Future studies should take more meat types, more representative samples, include some other countries and multiple respondents. The study is also limited with respect to methodology of correlation and regression model used and thus the authors suggest use of SEM and experimental design to address the problems associated with regression models.

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