Exploring Sustainable Meat Consumption Intentions in a Pakistani Collectivist Culture: Utilising the Theory of Planned Behaviour

Sadaf Zahra, Breda McCarthy, and Taha Chaiechi

Abstract Increased globalisation, urbanisation, and a growing middle class in developing countries significantly impact food sustainability, especially within the livestock industry. The way meat is produced, processed, transported and consumed has an immense effect on environmental sustainability. From an environmental perspective, it is vital to understand better how consumers can be motivated to restrict meat consumption, particularly in non-Western countries where this area is less explored. The current study proposes a model for an emerging economy, Pakistan, where meat consumption has increased rapidly. The empirical study employed the Theory of Planned Behaviour, integrating pro-environmental attitude, perceived behaviour control and collectivist culture, to investigate sustainable meat consumption intentions (SMCI) grounded in a specific context. Data were collected from 300 meat consumers and analysed through a two-step structural equation modelling (SEM) approach, i.e. measurement and structural models. Results reported that perceived behaviour control and collectivistic culture positively influence SMCI, and the model is partially mediated through pro-environmental attitude. The study findings can help managers and policymakers to understand consumer intentions and develop actionable strategies.

Keywords Sustainable meat consumption intentions (SMCI) · Collectivist culture · Theory of planned behaviour (TPB) · Emerging economy · Environmental sustainability · Structural equation modelling (SEM)

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1 Introduction

Meat production and consumption patterns are significant contributors to greenhouse gas emissions (GHG) and environmental deterioration worldwide (Apostolidis & McLeay, 2019; de Boer & Aiking, 2019). The livestock industry pollutes freshwater with antibiotics, hormones, and chemical substances, depletes freshwater availability, contributes to biodiversity loss, and is a significant source of anthropogenic greenhouse gas emissions (Sanchez-Sabate & Sabaté, 2019; Zur & Klöckner, 2014). Addressing threats from global meat production requires an in-depth knowledge of consumer intentions to reduce meat consumption and purchase more quality eco-friendly organic meat. Animals raised free from antibiotics, growth hormones, and enough space for grazing produce organic meat and contribute less GHGs emissions (Burnier et al., 2021; Hoang Viet et al., 2021; Yu et al., 2020). Consumers' sustainable meat choices can contribute to controlling environmental degradation.

Sustainable meat consumption allowed consumers to eat meat within planetary boundaries. As defined by FAO (2010), "Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimising natural and human resources". Motivating consumers' towards a more sustainable meat consumption is a great challenge. People consider meat a rich source of protein and associate meat with their traditional food culture (Apostolidis & McLeay, 2016; Paloviita, 2021) and are reluctant to change their meat consumption intentions. Therefore, globally, marketers and policymakers have been exploring effective ways to persuade consumers towards sustainable meat consumption by creating awareness about the social, environmental and economic consequences of unsustainable meat consumption. Studies have shown that increasing consumer awareness about the meat production process, improving society's knowledge about sustainable consumption, eco-labelling, group conformity pressures, and organic meat availability have all improved sustainable meat choices (Burnier et al., 2020; Peschel et al., 2016; Xie et al., 2015).

Numerous dietary studies are based on developed countries consumer markets in literature, although their attitudes, perceptions, and consumption patterns differ from developing nations. In addition, the culture, religion and country greatly influence consumers mindsets (Anam et al., 2018; de Boer et al., 2017; Minton et al., 2018; Mullee et al., 2017). These perspectives provide an interesting lens to view sustainable meat consumption intentions (SMCI) in an emerging economy context. The present empirical study suggests a new domain to capture the impacts of a collectivist culture on SMCI. The conceptual framework in the current study is based on the well-known Theory of Planned Behaviour (TPB). The authors propose that environmentally sensitive cultural values would better predict consumers' sustainable intentions in the context of an emerging economy, Pakistan. The cultural influence on meat consumption less explored in the literature, especially in the current behavioural change theories. The authors believe that the present avenue

would eventually cultivate and apply more effective livestock industries' sustainable strategies in the Pakistani context. Further to providing a conceptual framework, the paper also empirically examines the relationship between perceived behaviour control, pro-environmental attitude and collectivist culture on sustainable meat consumption intentions (SMCI).

Accordingly, the structure of this paper is as follows. Section 2 provides an overview of the literature about sustainable meat consumption and utilises the constructs perceived behaviour control, a pro-environmental attitude of the Theory of Planned Behaviour with an additional construct collectivist culture to develop the hypotheses. Section 3 illustrates the scope of the study. Section 4 describes the methodology considering the sample description, sampling technique and measurement scales. Section 5 reports analysis and results. Section 6 presents the discussion on findings and implications of the study, followed by Sect. 7 elucidates limitations and future research directions.

2 Literature Review

In recent years a stream of literature has attempted to analyse drivers that underlie consumer sustainable meat consumption behavioural intentions, including the curtailment of meat from the diet, the consumption of organic meat or plant-based protein, are pro-environmental attitude, perceived behaviour control, personal norms, environmental concern and animal welfare (Austgulen et al., 2018; Azzurra et al., 2019; Taufik, 2018; Vandenbroele et al., 2018). Culture is usually ignored when predicting behavioural intentions (Mancha & Yoder, 2015; Nair & Little, 2016). Several theories are reported in the food literature to explain sustainable behavioural intentions. The current study utilised TPB to understand the effect of collectivist culture on sustainable meat consumption intentions in the Pakistani context.

2.1 Sustainable Meat Consumption

Increasing environmental deterioration due to escalating meat consumption attracts global attention (Liobikienė & Bernatonienė, 2017; Taufik, 2018). Therefore, a deep understanding of consumers about sustainable meat consumption intentions has become crucial for policymakers and marketers. The literature defines sustainable meat consumption as the curtailment of meat consumption at an individual level (Austgulen, 2014). The food literature explains three interlinked strategies to achieve the target of sustainable meat consumption. These strategies are named efficiency, sufficiency and consistency (Allievi et al., 2015). Firstly, optimising the use of resources (land, water, crops) for meat production is called efficiency. Secondly, sufficiency is delineated as the consumer's responsibility to reduce the amount of

meat consumed, which is also linked to improved health and avoidance of obesity (Alexander et al., 2015; Tosun & Yanar Gürce, 2018). Thirdly, consistency is associated with farm-based animal welfare (AWE) (Allievi et al., 2015; Pohjolainen et al., 2016). AWE is related to the attributes related to the natural, green, organic and eco-friendly production of meat (Burnier et al., 2021). Consumers consider these factors when making purchase decisions through AWE labels on the packaging. It demands to replace animal-based protein with plant-based protein or eat eco-friendly meat such as organic (Lazzarini et al., 2018; Nijdam et al., 2012; Śmiglak-Krajewska & Wojciechowska-Solis, 2021).

2.2 The Theory of Planned Behaviour (TPB)

Consumer buying behaviour exacerbates most environmental problems, and therefore, the literature highlights that consumers have become aware of the need to buy environmentally friendly products (Medeiros & Ribeiro, 2017; Panda et al., 2020). The Theory of Planned Behaviour (TPB) (Ajzen, 1991) has become one of the most widely used rational choice models to explore the decision-making framework related to sustainable or ethical behaviour (Chang & Chuang, 2005; Hoeksma et al., 2017) across a wide range of eco-friendly contexts, such as organic food purchase intention (e.g. Pacho, 2020), sustainable seafood consumption (e.g. Honkanen & Young, 2015) and green consumption (e.g. Taufique & Vaithianathan, 2018). The TPB captures significant factors that explain the behaviour towards a particular issue (Ajzen, 1991). It permits various related variables like environmental concern, environmental knowledge, cultural values, religion and uniqueness seeking a lifestyle that may significantly affect specific behaviour (Marija Ham & Ana Pap, 2018; Minton et al., 2018; Nguyen et al., 2017; Pham et al., 2019). TPB models' flexibility allows researchers to incorporate additional variables and/or replace constructs of the underlying theory with other variables of interest to clarify consumer behavioural intentions (Kumar et al., 2017).

2.2.1 Perceived Behavioural Control

The Perceived Behavioural Control (PBC) states an individual's degree of self-control and willingness to execute specific behaviour is mainly determined by attitude and subjective norms (Ajzen, 1991). PBC can be divided into external and internal PBC. A person with high internal PBC has more control over personal resources, like confidence, planning and ability to perform a particular behaviour (Armitage & Conner, 1999). External PBC explains the control of external parameters, such as time, money and social pressure. Research in the Western context reports that PBC positively affects the organic food purchase decision (Hoeksma et al., 2017; Sultan et al., 2020). However, a study conducted in the United Kingdom showed that PBC has no impact on sustainable seafood consumption intentions

(Honkanen & Young, 2015). A study conducted in Asian context, supported that PBC enhance the purchase intention for green products (Maichum et al., 2016).

2.2.2 Collectivist Culture

The culture in which consumption activities occur embraces a dynamic array of entities, processes, events, and rituals that drive SMCI. Hofstede (1980, p.25) defines culture as "a collective programming of the mind which distinguishes one group from another". According to this definition, culture is likely rooted in each individual, forming a different school of thoughts and practices. Traditional culture may help to shape personal and collective identities (Milfont et al., 2010). Cultural traditions may improve consumers knowledge to choose more quality, eco-friendly organic meat dishes or move towards plant-based protein. Previous studies showed that food is a form of cultural heritage. People preferred those foods related to their specific traditions and festivals as they are familiar and culturally attached to and grown-up eating (Kapelari et al., 2020; Mancha & Yoder, 2015).

Cultural values can be separated at the collective and individual level. Followers of collectivist cultures tend to make decisions according to the group members' opinion (Xu-Priour et al., 2014). The literature shows that Western consumers tend to be more individualistic than Asian cultures, which are more collectivist (Cho et al., 2013; Nair & Little, 2016; Qi & Ploeger, 2019). In a collectivist culture, people's decisions closely bind with group conformity and place importance on the greater good for their extended family (Halder et al., 2020). To further explore the effect of collectivist culture on SMCI in more depth, the current study substituted subjective norms by incorporating collectivist culture.

2.2.3 Pro-Environmental Attitude

Regarding the TPB, people's intention to perform a specific behaviour is determined by their attitude, subjective norms, and perceived behavioural control (Ajzen, 1991). Attitude towards a behaviour is interpreted as the extent of an individual's favourable or unfavourable assessment of a particular behaviour (Ajzen, 1991). Several studies have verified that pro-environmental attitude is one of the most robust predictor influencing environmental behaviour (Hoang Viet et al., 2021; Taufique & Vaithianathan, 2018; Wang et al., 2018). Consumers' pro-environmental attitude can drive organic food consumption (Shin et al., 2017). Environmentally sensitive consumers are ready to pay premium prices for organic food, especially meat products, to protect the environment for society (Campbell-Arvai et al., 2014; Xie et al., 2015) and food safety concern (Yang, 2020). Pro-environment attitude varies between humans living in different geographic areas. An individual's pro-environmental attitude can be influenced by cultural values (Kim & Choi, 2005). The culture was a key predictor shaping pro-environmental attitude; people who belong to collectivistic culture more engaged in pro-environmental attitude because of their intentions

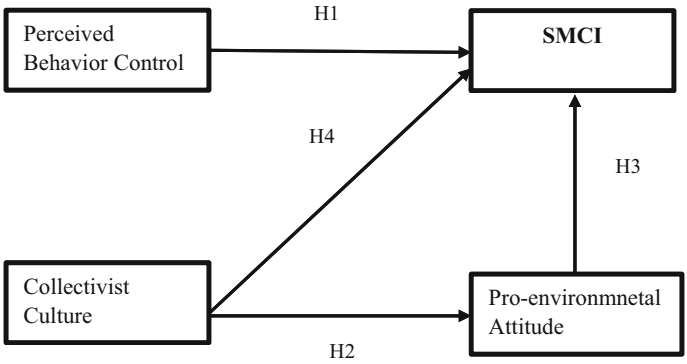


Fig. 1 Conceptual framework of sustainable meat consumption intentions (SMCI) model illustrating collectivist culture based on the amended structure of TPB

towards others, whereas individualists preferred personal goals (Mancha & Yoder, 2015; Milfont et al., 2010).

Based on the literature, the present study modifies the existing framework of TPB to examine the impact of collectivist culture instead of subjective norms on sustainable meat consumption intentions (SMCI) and proposes the following framework (Fig. 1).

2.3 Research Hypotheses

Based on the above discussion, this study proposes the following hypotheses:

H1: Perceived behaviour control affects SMCI
H2: Collectivist culture supports the pro-environmental attitude
H3: Pro-environmental attitude has an impact on SMCI
H4: Collectivist culture affects SMCI
H5: Pro-environmental attitude mediates the relationship between collectivist culture and SMCI

3 Scope of the Study

Pakistan is ranked as the fifth most populated country globally with a population of 233 million, as of July 2020, increasing 2 per cent yearly (CIA, 2020). Pakistan is one of the Muslim states with rich cultural, ethnic, religious and traditional festivals. Food, especially meat dishes, are dominant in Pakistani festivals and with consumers preferring Halal meat due to religious teachings (Sohaib & Jamil, 2017). Annual

meat consumption is expected to reach up to 20 kg per capita by 2022, compared to 16 kg, 19 kg reported in 2016 and 2018, respectively **(OECD,** 2019**).** Rising meat consumption in Pakistan is accelerating environmental hazards (Rehman et al., 2017; Ullah et al., 2018). Therefore, the current study adds to the literature on sustainable meat consumption by focusing on an emerging nation and proposing a model to capture cultural values' effect on consumer's purchase decision.

4 Methods

The current empirical study utilises an online survey technique to recruit respondents through purposive sampling. The online survey technique is appropriate and cost-effective to recruit a geographically diverse population (Pearson et al., 2016; Ritter & Sue, 2007). SPSS 26.0 was utilised for demographics description and data cleaning. PLS-SEM is the most robust technique in explaining complex consumer behaviour in marketing research (Hair et al., 2014; Hair et al., 2012). The present research employed SmartPLS v.3.3.2 for path analysis.

4.1 Survey Instrument

The current research survey was divided into two main sections: the first section contained questions related to respondents demographic profile such as age, income, education, marital status, gender, employment status and location. The second section was comprised of items related to the theoretical model of the current study. The pro-environmental attitude was measured through a four-item scale adapted from Biswas and Roy (2015). In this study, PBC refers to consumers' perceived control over reducing meat from diet or eating more quality organic meat. The current study utilised a six-item scale adapted from Fishbein and Ajzen (2010) to measure PBC. The collectivist culture was measured through a six-item scale adapted from Yoo et al. (2011). SMCI was measured on a three-dimensional scale developed in the Pakistani context by the study authors having ten- items. This scale explicitly measured the consumers' meat attachment, meat curtailment intentions and organic meat purchase intentions in Appendix 1. All the responses were measured on a seven-point Likert-type scale (1 = strongly agree to 7 = strongly disagree).

4.2 Data Collection Procedure and Analysis Technique

A survey link was created through 'Qualtrics' software for online data collection purpose. A half-page statement related to the importance of the sustainable meat consumption project followed by a survey link was published on three grocery store

websites having branches nationwide. The purposive (non-probability) sampling technique was used to recruit consumers responsible for grocery shopping for their household. Results may be biased due to the purposive sampling method. Even though literature support that purposive sampling results reliable and robust (Jupp, 2006; Zhao, 2018; Zikmund, 2003). The purposive sampling technique was employed in the absence of an adequate sampling frame and appropriate for theoretical generalizability (Akbar et al., 2019; Bukhari et al., 2018; Cooper & Schindler, 2008; Creswell & Plano Clark, 2018). An incentive was used to increase the response rate whereby the respondents could register separately in a draw and win a 32GB tablet.

Statistical analyses of the data were conducted through SPSS v. 26.0 and SmartPls v 3.2.2. Initially, Exploratory Factor Analysis (EFA) was performed for sampling adequacy (Hair et al., 2014) and followed by the partial least squares-structural equation modelling (PLS-SEM) for hypotheses testing. The two-step approach was applied for model analysis (Hair et al., 2014). Firstly, the embedded two-stage was utilised to confirm the validity and reliability of the measurement model. Secondly, the disjoint two-stage method was applied for hypotheses testing (Sarstedt et al., 2019).

5 Analysis and Results

Literature supports that a sample size of 200 is sufficient for structural equation model (SEM) analysis (Henseler & Sarstedt, 2013; Hoelter, 1983). SEM analysis demands at least five or, ideally, 10 cases per parameter (Bentler & Chou, 1987). As per the current study, the survey consisted of 26 items; therefore, the study required 260 (10*26) respondents. The online survey for the current research was conducted from 15th October 2020 to 15th December 2020. Overall, 525 respondents started to fill the survey, and only 300 completed it (57% response rate). A low response rate is prevalent in the online survey (see e.g. Sultan et al., 2018; Tandon et al., 2020). Larger sample size is always desired to reduce the sampling error (Randall & Gibson, 1990). Hence, the completed responses were sufficient for SEM analysis.

5.1 Demographics of Respondents

Firstly, the demographic characteristics of the respondents were examined and presented in Table 1. The total of 300 respondents consisted of 54% of males and 46% of females. Of the total respondents, 56.3% were married, 25.7% were students, and 20% owned a business. In terms of educational attainment, 40.3% of respondents have Inter-Bachelors degrees (14 years of education). Half of the respondents (51.3%) lived in cities, 35.7% lived in the suburbs and 13% in rural areas.

Table 1 Demographics characteristics of the sample

Variables	Category	Percentage
Gender	Male	54.0
	Female	46.0
Age	20–29	43.7
	30–39	27.0
	40–49	16.3
	50 or above	10.6
	Prefer not to say	2.30
Marital status	Married	56.3
	Widowed	2.50
	Divorced	1.30
	Single	39.9
Income[a]	Less than 25,000	8.0
	25,000–49,999	12.0
	50,000-74,999	13.0
	75,000-99,999	18.0
	100,000-124,999	8.3
	125,000-149,999	10.7
	150,000-174,999	8.7
	175,000 and more	21.3
Employment status	Landlord	13.0
	Own business	20.0
	Unemployed	16.7
	Employed, part-time	6.0
	Employed, full-time	18.7
	Student	25.7
Education	Primary (year 5)	6.0
	Middle- Matric (Year 10)	13.7
	Inter- Bachelors	40.3
	Master- PhD	30.3
	Professional education	9.7
Location	City	51.3
	Suburb	35.7
	Countryside	13.0

[a]Income: given in Pak Rupees (Rs)

5.2 *Measurement Model*

Initially, EFA was conducted using the Principle Component Analysis (PCA) with varimax rotation. Kaiser-Meyer-Olkin (KMO) measure (KMO = 0.875) and Bartlett's test ($X^2 = 2582.234$, $p < 0.001$) confirmed the appropriateness of data for EFA analysis (Sultan et al., 2020). The items (ColCul3, ColCul4 and PBC1) having communalities less than 0.50 were deleted iteratively (Kaiser, 1974). Results of EFA are reported in Table 2. According to Ringle et al. (2015), before accessing

Table 2 Measurement Model assessment (First-order)

Constructs	Comm.	Outer Loading	AVE's	α	CR
A. Collectivist Culture			0.574	0.753	0.843
ColCul1	0.572	0.773			
ColCul2	0.620	0.755			
ColCul5	0.587	0.746			
ColCul6	0.687	0.756			
B. Meat Attachment Intention			0.649	0.729	0.847
MAI1	0.564	0.773			
MAI2	0.706	0.824			
MAI3	0.664	0.818			
C. Meat Curtailment Intention			0.628	0.705	0.835
MCurlI1	0.642	0.771			
MCurlI2	0.603	0.792			
MCurlI3	0.623	0.814			
D. Organic Meat Purchase Intention			0.609	0.785	0.861
OMPI1	0.600	0.755			
OMPI2	0.608	0.785			
OMPI3	0.789	0.845			
OMPI4	0.533	0.732			
E. Perceived Behaviour Control			0.548	0.725	0.829
PBC2	0.562	0.714			
PBC4	0.547	0.763			
PBC5	0.556	0.714			
PBC6	0.553	0.768			
F. Pro-Environmental Attitude			0.699	0.857	0.903
ATT1	0.660	0.748			
ATT2	0.734	0.855			
ATT3	0.765	0.891			
ATT4	0.687	0.844			

Note: AVE: Average variance extracted, CR: Composite reliability, α: Cronbach alpha

the proposed hypotheses (the inner model), the outer model's reliability and validity should be maintained. Accordingly, the outer model in the current study was evaluated by assessing convergent and discriminant validity.

5.3 Convergent Validity

Three measures may be used collectively to identify the levels of convergent validity. Factor loading is the first measure that should be statistically robust, significant and greater than 0.7. The average variance extracted (AVE) of every construct should be greater than 0.5, which is the second measure (Fornell &

Larcker, 1981). The SMCI, the dependent variable, was revealed as a second-order construct with three dimensions; therefore, the AVE of SMCI was measured based on its first-order constructs (Souki et al., 2019). The third measure is the composite reliability (CR) which should be greater than 0.7. All the required criteria, as reported in Tables 2 having acceptable values.

5.4 Discriminant Validity

Discriminant validity is established through the Fornell and Larcker (1981) estimates. Each AVE's square root in the diagonal with the correlation coefficients (off-diagonal) of each construct in the relevant rows and columns are compared. The AVE square roots must be larger than the correlations among the constructs. The results (Table 3) indicated that the AVE square roots for all analysed constructs were superior to Pearson correlations; hence, the measurement model presents discriminant validity (Hair et al., 2010).

5.5 Structural Modeling and Hypotheses Testing

This study assessed the structural model to meet the criteria of the three most robust methods: (1) the path coefficients with t-statistics values; (2) the coefficient of determination (R^2); and (3) the stone-Geisser criterion (Q^2) (Geisser, 1975). Bootstrapping sample of 5000 with a bias-corrected confidence interval method (0.05) was utilised to test all hypotheses.

Table 4 presented the path coefficients (β), t-statistics and P-values for all hypotheses. Results showed that all the hypotheses show significant values ($\beta > 0.1$, $t > 1.96$, $P < 0.05$) and accepted. The result also analysed the indirect effect of collectivist culture on SMCI with a mediating effect of Pro-environmental attitude and accepted the hypothesis. The results showed a partially mediated model.

The R^2 values for both pro-environmental attitude (0.198) and SMCI (0.379) indicated that the proposed model has good predictive accuracy (Hair et al., 2014).

Table 3 Fornell-Lacker estimates for Discriminant validity

Constructs	A	B	C	D	E	F
A. Collectivistic culture	**0.758**					
B. Meat attachment intention	0.453	**0.806**				
C. Meat curtailment intention	0.423	0.442	**0.792**			
D. Organic meat purchase intention	0.472	0.492	0.437	**0.78**		
E. Perceived behaviour control	0.438	0.34	0.278	0.366	**0.74**	
F. Pro-environmental attitude	0.445	0.334	0.213	0.476	0.446	**0.836**

Note: Diagonal values show the square root of AVE for each construct

Table 4 Hypotheses results

Hypotheses	β	t-statistics	P-values	Decision
H1: Perceived Behaviour_ control - > SMCI	0.148	2.590	0.011	Supported
H2: Collectivist _Culture- > Pro_Environmental_Attitude	0.445	8.216	0.000	Supported
H3: Pro_Environmental_Attitude - > SMCI	0.191	2.991	0.003	Supported
H4: Collectivist _Culture - > SMCI	0.414	6.625	0.000	Supported
H5: Collectivist _Culture - > Pro_Environmental_Attitude- > SMCI	0.143	2.794	0.005	Supported

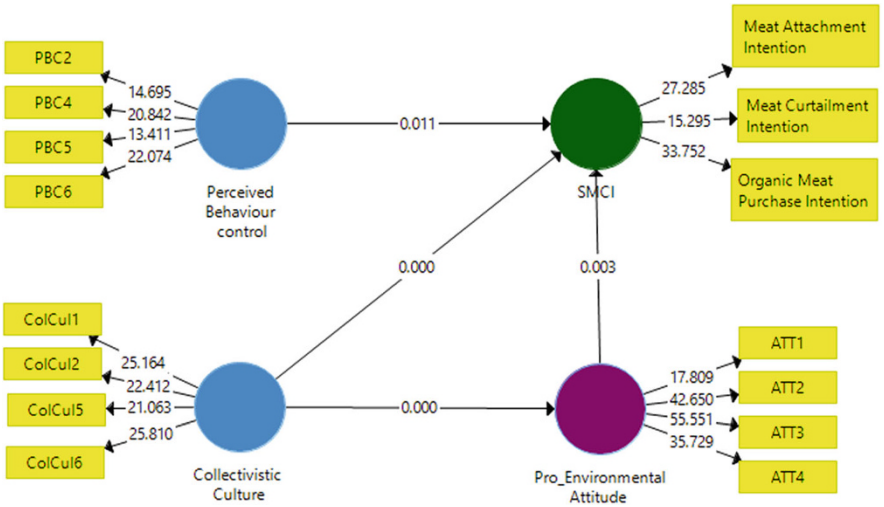


Fig. 2 The structural model with T-values (outer-model) and P-values (inner-model)

The current study also analysed Q^2 values greater than zero by using a blindfolding procedure to cross-validate the predictive relevance of the constructs pro-environmental attitude (0.131) and SMCI (0.223) (Ringle et al., 2015) (Fig. 2).

6 Discussion and Implications

The present empirical study was designed entirely around the TPB model (Ajzen, 1991) to understand different antecedents' effects on Pakistani consumers' SMCI. Food choice is a complex behaviour highly intertwined with culture (Wang & Basso, 2019). Therefore, adding collectivist culture in the TPB model increased the explanatory capability of the model significantly in the Pakistani context, where the people lived in an extended family system and are bounded in their decisions (Ahmad et al., 2020).

The findings of the study have some policy implications. First, the results revealed that consumers' pro-environmental attitudes are strongly related to sustainable meat consumption intentions. The result is consistent with the recent study conducted in the context of young Indian consumers' pro-environmental behaviour (Taufique & Vaithianathan, 2018). Similarly, the current study results recommend that livestock marketers and environmentalists communicate environmental and sustainability-related information on the meat packages to create favourable attitudes towards eco-friendly organic meat in a developing country such as Pakistan.

Second, the statistical findings verified that PBC influences SMCI. Therefore, the concept of PBC and its application to products were considered effective in promoting favourable attitudes and SMCI. A sustainable meat consumption intention may occur when an individual has the ability and motivation to perform a specific behaviour. The findings are consistent with previous studies conducted in green hotels (Han & Kim, 2010), organic food (Maichum et al., 2016; Zhu et al., 2013) and sustainable consumption (Wong & Aini, 2017) areas. The study findings are suggesting that the Government, organic meat producers, NGO's should develop strategies that motivate consumers for sustainable meat consumption to reduce environmental degradation in Pakistani culture.

Third, the results proved that collectivist culture is the most strong predictor of SMCI. This phenomenon is most likely a consequence of the Pakistani culture, where consumers rely on others' opinions and past experiences instead of rationally analysing the product's features during the food purchase stage. The study finding is consistent with another recent research conducted in another emerging country, china, that showed that group conformity enhances sustainable food consumption intentions (Qi & Ploeger, 2019). The results guide the policymakers and livestock producers who want to recognise sustainable marketers to create and develop more efficient advertising campaigns; by introducing self-enhancing promotional messages, such as "step forward for the societal good" in traditional societies. In other words, promoting general sustainable attitudes requires an understanding of the consumers' specific sustainable behaviours (Minton et al., 2018; Thøgersen, 2010). Policymakers, social marketers and sustainable activists need to help consumers build positive impressions of sustainable consumption before expecting consumers to engage in sustainable meat consumption. The current study helps to fill a gap in the literature by investigating how consumers who belong to an emerging nation react to sustainable meat consumption using the lens of collectivist culture.

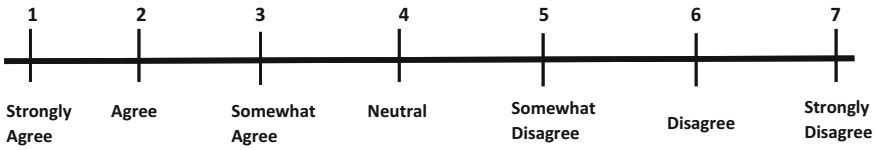
7 Limitations and Future Research Direction

The present study provides interesting information but still has some limitations. First, the study is limited only to measuring intentions and not actual consumer behaviour, although there is evidence that intentions are related to behaviour (Sudbury-Riley & Kohlbacher, 2016). A longitudinal study is required to measure

actual behaviour. Second, the study is conducted in Pakistani culture, and the results are not generalisable to consumers living in other emerging nations. This study contributed to the literature by examining the predictors' antecedents of SMCI in an emerging country, where sustainable consumption research is at a nascent stage.

Appendix 1: Research Survey

Response Scale



Theoretical Constructs

Perceived behaviour control								
1	I am confident that if I want, I can buy organic meat.	1	2	3	4	5	6	7
2	To buy or not to buy organic meat is entirely up to me.	1	2	3	4	5	6	7
3	It's inconvenient to purchase organic meat, although I have the purchase intention	1	2	3	4	5	6	7
4	I understand the environmental phrases and symbols on the product package.	1	2	3	4	5	6	7
5	I am very knowledgeable about environmental and social issues.	1	2	3	4	5	6	7
6	I know how to select products and packages that reduce the amount of waste ending up in landfills	1	2	3	4	5	6	7
Attitude								
7	Buying organic meat is a good idea.	1	2	3	4	5	6	7
8	Buying organic meat is a wise choice.	1	2	3	4	5	6	7
9	I like the idea of buying organic meat.	1	2	3	4	5	6	7
10	Buying organic meat would be pleasant.	1	2	3	4	5	6	7
Collectivist culture								
11	Individuals should sacrifice self-interest for the group	1	2	3	4	5	6	7
12	Individuals should stick with the group even through difficulties	1	2	3	4	5	6	7
13	Group welfare is more important than individual reward	1	2	3	4	5	6	7
14	Group success is more important than individual success	1	2	3	4	5	6	7
15	Individuals should only pursue their goals after considering the welfare of the group	1	2	3	4	5	6	7
16	Group loyalty should be encouraged even if individual goals suffer	1	2	3	4	5	6	7
Sustainable meat consumption intentions								
Meat attachment intention								
17	My meal is incomplete without meat	1	2	3	4	5	6	7

(continued)

Perceived behaviour control								
18	I am attracted to more meat dishes.	1	2	3	4	5	6	7
19	I can't reduce meat from my diet.	1	2	3	4	5	6	7
Meat curtailment intention								
20	By eating meat, I engage with industry responsible for significant environmental damage	1	2	3	4	5	6	7
21	I know my meat consumption habit harms the environment.	1	2	3	4	5	6	7
22	I feel motivated when I see that other people also reduce meat from their diet.	1	2	3	4	5	6	7
Organic meat purchase intention								
23	I prefer to buy organic meat due to my health concerns.	1	2	3	4	5	6	7
24	I know if I buy organic meat, it is a step towards sustainability.	1	2	3	4	5	6	7
25	I would like to pay more for organic meat for a quality of life.	1	2	3	4	5	6	7
26	If I have a choice, I prefer to buy organic meat.	1	2	3	4	5	6	7

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