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TO BUY OR NOT TO BUY? CONSUMERS' PURCHASE INTENTION TOWARD SUBOPTIMAL FOOD IN PAKISTAN

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ABSTRACT

Food waste reduction have global attention by promoting suboptimal food. The purpose of the study is to develop an extended Theory of Planned Behavior (TPB) research model, which includes price consciousness and environmental concern to predict suboptimal food purchase intention. The data was collected through survey (paper and online based) from grocery consumers. In total, 420 respondents were from cities of southern Punjab Pakistan namely Multan, D G Khan, Bahawalpur, and Rahim Yar khan. SPSS 22 was used to analyze data. The findings revealed that the constructs of TPB, such as attitude (ATT), subjective norms (SN) and perceived behavioral control (PBC) have significant effect on consumer purchase intention (PI). Consistently, price consciousness (PC) and environmental concern have positive affect on consumer purchase intention (PI). The findings add to the growing body of knowledge about suboptimal food purchase intentions, especially in developing nations like Pakistan. For marketers, and sellers the findings have both theoretical and practical implications.

Keywords: Environmental Concern (EC), Price Consciousness (PC), Theory of Planned Behavior (TPB), Suboptimal Food (SOF)
JEL Codes: F64

I. INTRODUCTION

In recent years, scholars and policymakers have become increasingly interested in the problem of food waste (Adel et al., 2021; Gruber et al., 2016). Around 30 to 50 % food is wasted annually each year (FAO, 2011). Food waste is projected to be worth US$310 billion in developing countries. Pakistan is one of the world's most food-insecure countries, according to the Global Hunger Index 2020, ranking 94th on the food security risk index as "extremely susceptible. Consumers' desire for aesthetically pleasing standards is a major contributor to food waste levels (Adel et al., 2021; Aschemann-Witzel et al., 2021). Adel et al. (2021) discuss that "food products that do not meet particular cosmetic requirements are referred to as suboptimal food goods". Suboptimal food refers to as "products that deviate from normal or optimal products based on appearance standards in terms of, e.g., weight, shape, or size," or "on the basis of their date labeling" (e.g., close to or beyond the best-before date) and "on the basis of their packaging (e.g., a torn wrapper, a dented can), without deviation on the intrinsic quality or safety" (Aschemann-Witzel et al., 2018; Giménez et al., 2021). Previous studies have low preferences regarding the suboptimal food items (Adel et al., 2021; Aschemann-Witzel et al., 2021; Xu et al., 2020). Consumer preferences towards suboptimal food (vegetables and fruits) may assist to reduce food waste. Despite the abundance of research there is a gap to motivate the consumers regarding the suboptimal food products.

Previous studies have been used different theories to predict consumer behavior regarding suboptimal food. Such as, Alphabet Theory Hartmann, Jahnke, and Hamm (2021), theory of interpersonal behavior (TIB) Giménez, Aschemann-Witzel, and Ares (2021), utilization theory Cao and Miao (2021) and theory of planned behavior (TPB) Tufail and Yaqub (2021). Among these theories, TPB is thought to be a good fit for empirical studies on socio-psychological

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aspects that influence food consumption (Adel et al., 2021; Billah et al., 2020). For various reasons, the TPB is the appropriate paradigm for examining the causal links connecting to customers' behavioral intentions toward suboptimal food. Firstly, it is one of the most widely quoted and well-known behavioral theories for forecasting human social behavior. It's one of the most widely used models for predicting and understanding consumer behavior, such as environmental and food waste behavior (Tufail & Yaqub, 2021; Ali and Naeem, 2017; Ali, 2011; Ali, 2015; Ali, 2018; Ali and Bibi, 2017). Hence, many researcher have used the TPB to predict the consumer behavior regarding food items (Adel et al., 2021; Tufail & Yaqub, 2021; Wong et al., 2018). Second, the TPB takes into account a wide range of motivating aspects that are not taken into account by other behavioral models. Finally, the TPB provides a framework that may be expanded by adding more relevant constructs and/or incorporating mediation and moderation effects (Adel et al., 2021; Graham-Rowe et al., 2015; Tufail & Yaqub, 2021). Despite the TPB's explanatory strength, there is still a gap in the link between the three TPB components' explanatory elements and their resulting behavioral intention. Consequently, researchers recommend adding more features to the model to improve its explanatory power, such as environmental concern and price consciousness (Tufail & Yaqub, 2021).

This current study proposed a conceptual model that explores the motivation factors such as price consciousness (PC) and environmental concern (EC) on suboptimal food purchase intention (PI) in Pakistan. The uniqueness of this study is that it is the first attempt to use the TPB to predict consumer behavior towards suboptimal food in Pakistan (Tufail & Yaqub, 2021; Xu, Jeong, Jang, & Shao, 2021). While no prior studies, which observed the interaction of TPB with price consciousness and environmental concern in Pakistan toward suboptimal food. Hence this current study gives the literature on consumer intention to purchase with the focus of suboptimal food. TPB examines consumer attitude towards suboptimal food purchase intention in a single framework. Thus, the goals of this study are (1) to investigate whether the TPB model's three core constructs can predict consumers' behavioral intentions toward suboptimal food (2) exploring whether extended additional variables mentioned above can help predict consumers' behavioral intentions toward suboptimal food in Pakistan. This study contributes to food waste research, suboptimal food items, and the TPB by (1) providing the motivation factors which motivates the consumers towards suboptimal food (2) Adding constructs to the TPB model that have been shown to have an effect in the context of food consumption (3) providing retailers and policymakers with practical and societal implications that help them make better decisions about suboptimal food. The remainder of the study is organized as follows: the second portion covers the literature on environmental concern, price consciousness (TPB), and purchase intention. The research technique is presented in the third section of this study. The research findings are described in the fourth part. Discussion, conclusion, implications, limitations, and future research directions are all included in the study's final section.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

II.I. THEORY OF PLANNED BEHAVIOR (TPB)

TPB is employed in the proposed theoretical research framework to explain customer purchase intention regarding suboptimal food. Two additional constructs price consciousness and environmental concern are used with TPB to understand the suboptimal food purchase intention. The extension of TRA is the "theory of planned behavior" (TPB) (Ajzen, 1991). "The theory of planned behavior (TPB) is a psychology concept that connects belief to behavior". According to the theory, an individual's behavioral intentions are shaped by three basic components: attitude (ATT), subjective norms (SN) , and perceived behavioral control (PBC) (Ajzen, 1991). Performing of behavior in a positive or negative way is called attitude (Fishbein & Ajzen, 1980). Individual attachment with friends , family and colleagues, and society is called subjective norms (Ajzen & Fishbein, 2000). "Perceived behavioral control explains the person's skill to control their behavior" (Ajzen & Fishbein, 2000). Intention indicates that "an individual's readiness to perform a given behavior" (Ajzen & Fishbein, 2000; Kaseem et al., 2019; Roussel et al., 2021; Senturk and Ali, 2021). Consumer final response in a given situation is called behavior (Ajzen & Fishbein, 1969, 2000). TPB has been used to investigate the relationships between beliefs, attitudes, behavioral intentions, and behaviors across a wide range of human domains. Advertising, public relations, advertising campaigns, healthcare, sport administration, and so on are examples of these disciplines.

II.II. PURCHASE INTENTION (PI)

Consumer willingness to purchase suboptimal food in future is called purchase intention (PI). If the consumers have positive purchase intention they will be more willing to purchase suboptimal food in future. Tufail and Yaqub (2021) proposed that consumers are more like to purchase suboptimal food if they have strong and positive intention regarding suboptimal food. Previous researches shows that purchase intention is a strong predictor in the field of food marketing (e.g.) suboptimal food marketing (Tufail & Yaqub, 2021), organic food marketing (Testa, Sarti, & Frey, 2019) and halal food marketing (Amalia, Sosianika, & Suhartanto, 2020).

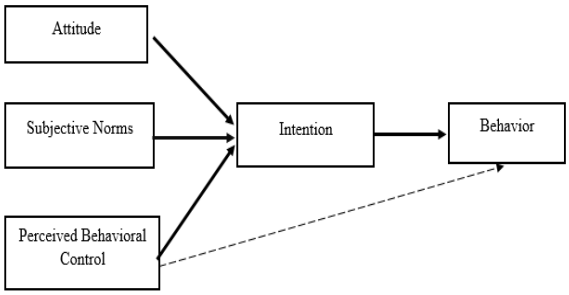

Figure 1. TPB (Ajzen, 1991)

II.III. ATTITUDE (ATT)

Attitude in the research frame work shows that environmental concern and price consciousness consumer have positive feelings toward suboptimal food. Attitude is defined "as the feeling and perception that one has towards a single thing". The relation among attitude and purchase intention has previously been explored in different studies (e.g.) green consumption behavior (Ruangkanjanases et al., 2020), organic food consumption (Tandon, Dhir, Kaur, Kushwah, & Salo, 2020), local food consumption (Kwant, 2021), halal food consumption (Amalia et al., 2020) and suboptimal food consumption (Tufail & Yaqub, 2021). According to these previous studies that are mention in above lines attitude have positive impact on food purchase intention and behavior. Thus, the study hypothesis that:

Hypothesis (H1): Attitude has positive impact on suboptimal food purchase intention.

II.IV. SUBJECTIVE NORMS (SN)

Subjective norms (SN) in the research frame work defined that how the behavior of consumers in the suboptimal food purchasing will be influenced by perceptions of people in his/her social groups. Subjective norms denote the social and societal impact on individual intentions or behaviors (Ajzen, 1991; Ali and Ahmad, 2014; Ali and Audi, 2016; Ali and Audi, 2018; Ali and Rehman, 2015; Ali and Senturk, 2019). Subjective norms (SN) is important element for the selection and purchasing of food because it decreases uncertainties of consumers. Similarly, various other studies have found that subjective norms (SN) play a significant role in determining people's intentions, including their participation intentions, in the context of marketing and consumer behavior (e.g.) suboptimal food purchase intention (Adel et al., 2021; Wong et al., 2018), organic food purchase intention (Ahmed et al., 2021), green food purchase intention (Qi & Ploeger, 2019), technology use intention (Wang et al., 2021), e -waste management intention (Ramzan et al., 2020), entrepreneurial intentions (Munir, Jianfeng, & Ramzan, 2019) . Moreover, the findings of the previous studies show that subjective norms has positive affect on consumer intentions and behaviors. Therefore, the following hypothesis is proposed:

Hypothesis (H2): Subjective norms (SN) has positive impact on suboptimal food purchase intention.

II.V. PERCEIVED BEHAVIORAL CONTROL (PBC)

Perceived behavioral control (PBC) states that "individual control beliefs as for how easy or difficult in performing a particular behavior" (Ajzen, 2002). Perceived behavioral control (PBC) in the research frame work refers to the facilitating conditions of purchasing suboptimal food including the price saving and environmental concern. Previous studies shows that perceived behavioral control (PBC) has positive impact on consumers intention in different range of research contexts (e.g.) suboptimal food (Adel et al., 2021), organic food (Adel et al., 2021), local food (Lim & An, 2021), green food (Qi & Ploeger, 2021), green hotel (Yeh et al., 2021), green products (Varah et al., 2021), intention to recycle (Arli et al., 2020), e-waste intention (Ramzan et al., 2020), entrepreneurial intentions (Munir et al., 2019).

Hypothesis (H3): Perceived behavioral control (PBC) has positive impact on suboptimal food purchase intention.

II.VI. PRICE CONSCIOUSNESS (PC)

Price consciousness (PC) is defined as in this research frame work "the degree to which the consumer focuses exclusively on paying low prices" (Xu et al., 2021). Recent studies have discussed that low pricing strategies such as

a special discount could increase the suboptimal food purchase intention (Stöckli & Dorn, 2021; Tsalis, 2020; Xu et al., 2021).The findings of the previous studies showed that price consciousness has positive affect on suboptimal food purchase intention (Stöckli & Dorn, 2021; Tsalis, 2020; Xu et al., 2021; Ali and Zulfiqar, 2018; Ali et al., 2016; Ali et al., 2021; Ali et al., 2021; Ali et al., 2015; Arshad and Ali, 2016; Ashraf and Ali, 2018; Audi et al., 2022; Audi and Ali, 2017; Audi and Ali, 2017.Similarly, according to Prentice, Chen, and Wang (2019) organic food purchase intention positively influenced by price consciousness term . Likewise, a study conducted by H.-H. Chang and Su (2022) showed that discount price has positive impact on expiration date-based food products. Consequently, based on the above discussion consumers who are price consciousness have positive purchase intention and consumption towards suboptimal food. Thus, following hypothesis is proposed:

Hypothesis (H4): Price Consciousness (PC) has positive impact on suboptimal food purchase intention.

II.VII. ENVIRONMENTAL CONCERN (EC)

Environmental concern (EC) term refers as "the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution" (Dunlap et al., 2002). Previous studies discussed that there is a positive relationship among environmental concern and suboptimal food purchase intention (Ahmed et al., 2021; Tufail & Yaqub, 2021; Wong et al., 2018) . Similarly, according to Kapuge (2016) environmental concern positively influenced on intention to purchase ecofriendly products. Likewise, organic food purchase intention positively influenced by environmental concern. Moreover previous findings also suggested that environmental concern has positively influenced on consumer attitude and organic food purchase intention (H.-P. Chang, Ma, & Chen, 2020; Dangi, Gupta, & Narula, 2020; Katt & Meixner, 2020). Furthermore, according to Shen and Chen (2020) fast food purchase intention positively and significantly influenced by environmental concern. More specifically, consumers who are more concern about environmental issues have high level of suboptimal food consumption. Therefore, the above dissuasion results show the following hypothesis:

Hypothesis (H5): Environmental concern (EC) has positive impact on suboptimal food purchase intention.

III. RESEARCH FRAMEWORK

Theory of planned behavior (TPB) core of this research, with the two components of "price consciousness" and "environmental concern" combining to build an extended TPB model. This research explores Pakistani consumer's perception and preferences towards suboptimal foods as well as their willingness to purchase. Figure 2 depicts the proposed theoretical framework.

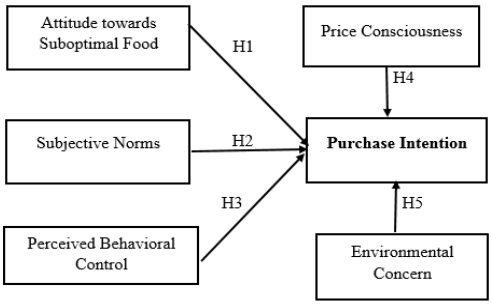

Figure 2.Conceptual framework of the study: TPB (Ajzen, 1991)

Figure 2. explain the research framework and hypotheses of the study. H1: Attitude (ATT) has positive affect on Purchase intention (PI); H2: Subjective norms (SN) has positive affect on Purchase intention (PI); H3: Perceived behavioral control (PBC) has positive affect on Purchase intention (PI); H4: Price consciousness has positive affect on purchase intention (PI); H5: Environmental concern has positive affect on Purchase intention (PI).

IV. MATERIALS AND METHODS

IV.I. MEASURE

The questionnaire of the current study was derived from the previous literature. All the items were adopted from the related studies. All items related to TPB and extensive studies of food waste reduction were measured on a seven -

point Likert-type scale where 7 shows (Strongly Agree) and 1 shows (Strongly Disagree). The source of adoption all items and the survey items are mentioned in below paragraph and in Table 1. PI was measured by 4 items derived from Ajzen (2002); Arvola et al. (2008); Yazdanpanah, Komendantova, and Ardestani (2015). Attitude was the antecedent of TPB was measured by 4 items obtained from Y. Wang, Wiegerinck, Krikke, and Zhang (2013) and the other antecedents of TPB were measured by 3 items for SN and the 3 items for PBC obtained from Han, Hsu, and Sheu (2010); Ajzen (2002); Arvola et al. (2008). PC was measured by 3 items adopted by Lichtenstein, Ridgway, and Netemeyer (1993). EC was measured by 4 items adopted by Lichtenstein et al. (1993).

IV.II. SAMPLE AND DATA COLLECTION

Data for this current study were collected form four cities of Southern Punjab Pakistan: Multan, D G Khan, Bahawalpur, and Rahim Yar khan. Data were collected from consumers who have grocery shopping experience in Southern Punjab Pakistan from January 2022 to April 2022. The study was survey based (paper and online) in Southern Punjab Pakistan. The overall number of questionnaires given was 700, however after removing invalid responses, the final sample size was 420, resulting in a 73% response rate. To confirm the reliability and validity of the measures a pilot study was done with the sample size of 40 respondents. The demographic information for respondents is shown in Table 2.

IV.III. STATISTICAL ANALYSIS

For assessing the proposed research framework, this current study implements SPSS 22.

V. RESULTS

Table 1. Constructs and measuring items statements.

Construct	Items
ATT	1: "Buying suboptimal food is a good idea" 2: "Buying suboptimal food is a wise choice" 3: "I like the idea of buying suboptimal food" 4: "Buying suboptimal food would be pleasant"
SN	1: "Most people, important to me, think that I should buy suboptimal food" 2: "Most people, important to me, would want me to purchase suboptimal food" 3: "People whose opinion I value would prefer that I should buy suboptimal food"
PBC	1: "If I wanted to, I could buy suboptimal food instead of nonorganic food" 2: "I think it is easy for me to buy suboptimal food" 3: "It is mostly up to me whether or not to buy suboptimal food"
PC	1: "I grocery shop at more than one store to take advantages of low prices" 2: "The money saved by finding low prices is usually worth the time and effort" 3: "I would shop at more than one store to find low prices" 4: "The time it takes to find low prices is usually worth the effort"
EC	1: "The balance of nature is very delicate and can be easily upset" 2: "Human beings are severely abusing the environment" 3: "Humans must maintain the balance with nature in order to survive" 4: "Human interferences with nature often produce disastrous consequences"
PI	1: "I am willing to consume suboptimal food if they are available for purchase" 2: "I intend to consume suboptimal food if they are available for purchase" 3: "I plan to consume suboptimal food if they are available for purchase" 4: "I will try to consume suboptimal food if they are available for purchase"

V.I. DEMOGRAPHIC STATISTICS

Table 2 showed the demographic characteristics of grocery consumers. The demographic information showed that 285 respondents were male with 64.8 % while 155 respondents were female with 35.2 %. The above table also showed the consumer age group information (e.g.) 20-30 years respondents consisted of 249 (56.6%), followed by 106 (24.1%) from 31-40 years old groups, remaining 58 (13.2 %) from age 41-50 years, 20 (4.4%) from age 51-60 years and only 7 (1.6 %) respondents were from the age groups 61-70. . Furthermore, 209 (47.5 %) of respondents were married, and 231 (52.5%) of respondents were unmarried. Moreover, table 2 also explained the education level of the

consumers (e.g.) 14 (3.2%) respondents have intermediate degree, while 134 (30.5 %) undergraduates, 141 (32.0%) graduate, 120 (27.3%) postgraduate, and 31 (7.0%) have professional degrees. Similarly, table 2 also showed the occupational level of the consumers (e.g.) 109 (24.8 %) consumers were government employee, while 101 (23.0%) consumers were private employees, 75(17.0%) consumers were self- employees, and rest of 155 (35.2 %) respondents have other status (retired employees and house wives). Additionally, table 2 also revealed the consumers family size (e.g.) 56 (12.7 %) consumers belonged to small family size, while 220 (50.0%) consumers belonged to medium family size, and 164 (37.3 %) consumers belonged large family size. Similarly, table 2 also represented the consumers income level (e.g.) 45 (10.2%) consumers have (less or equal to 20,000) income group, while 110 (25.0 %) respondents have (20,001–50,000) income group, followed by 98 (22.3%) fall (50,001-100,000) income group, likewise 66 (15.0 %) consumers were fall (100,001-200,000) income group, and 121 (27.5 %) consumers were belonging to (above 200,000) income groups.

Table 2. Demographic information (n= 420)

Variable	Categories	Frequency	Percentage
Gender	Male	285	64.8
	Female	155	35.2
Age	20-30	249	56.6
	31-40	106	24.1
	41-50	58	13.2
	51-60	20	4.5
	61-70	7	1.6
Marital Status	Married	209	47.5
	Unmarried	231	52.5
Education	Intermediate	14	3.2
	Undergraduate	134	30.5
	Graduate	141	32.0
	Postgraduate	120	27.3
	Professional	31	7.0
Occupation	Govt Employee	109	24.8
	Private Employee	101	23.0
	Self- Employee	75	17.0
	Other	155	35.2
Household size	Small(1-3 Member)	56	12.7
	Medium(4-5 Member)	220	50.0
	Large(Above 6 Member)	164	37.3
Household income per month (PKR)	Less or equal to 20,000	45	10.2
	20,001-50,000	110	25.0
	50,001-100,000	98	22.3
	100,001-200,000	66	15.0
	Above 200,000	121	27.5

V.II. DESCRIPTIVE STATISTICS AND CORRELATION ANALYSIS

This descriptive statistic has gathered the most related information, which is presented in the table below. To summarize and describe the key aspects of the current study's data sets, descriptive statistics were used. It was carried out in order to obtain broad descriptions of the constructs used in this study. As a result, descriptive statistics were used to calculate the mean, variance minimum, standard deviation, and maximum values of mediating, independent, and dependent variables. Table 3 illustrated the descriptive statistics results. Table 3 shows the reliability of the constructs (e.g.) Attitude (ATT) has .915, Purchase intention (PI) has .948, Environmental Concern (EC) has .781, Price consciousness (PC) has .757, Subjective norm (SN) has .780 and perceived behavioral control (PBC) has .636 which was suitable for the data analysis. Moreover, table 3 also indicated the descriptive statistics and correlation analysis. The mean values for attitude is 12.9648 with standard deviation of 5.59566. Table 3 also showed that PI has mean value 13.3960 and 6.43695 and standard deviation of 6.43695. Environmental Concern (EC) is seen to have mean value 18.30 with standard deviation of 2.40042. Whereas, Price consciousness (PC) has mean value 15.6165 standard deviation of 5.34977. However, Subjective norm (SN) and Perceived behavioral control (PBC) have mean value and stander deviation (9.6045, 5.59705) (9.4667, 3.96037). Correlation analysis of the current study also shown

in table 3. The results indicated that ATT, SN, PBC, PC and PC are significantly correlated with the dependent variable PI.

Table 3. Descriptive Statistics and Correlation Analysis

Construct	Mean	S.D	Reliability	1	2	3	4	5	6
1: Attitude (ATT)	12.9648	5.59566	.915	1.00					
2: Purchase Intention (PI)	13.3960	6.43695	.948	.749**	1.00				
3: Environmental Concern (EC)	18.3080	2.40042	.781	.194**	.204**	1.00			
4: Price consciousness (PC)	15.6165	5.34977	.757	.377**	.314**	.183**	1.00		
5: Subjective norm (SN)	9.6045	5.59705	.780	.531**	.483**	.154**	.262**	1.00	
6: Perceived behavioral control (PBC)	9.4667	3.96037	.636	.745**	.648**	.192**	.336**	.690**	1.00
"*, ** Significant at the p<0.05 and p<0.01 levels, respectively."									

V.III. REGRESSION ANALYSIS

Regression analysis of the study shown in table 4. Findings of regression analysis described that the impact of ATT on PI having values R= .749, R^2= .561, SD= 0.36, β = .749 and P value =.000. Moreover, regression values for the effect of SN on PI are R =.483, R^2 =.233, SD= 0.48, β = .483 and (P =.000) show the significance of this direct effect. Further, the impact of PBC on PI has significant result as the P-value (P < 0.05), R = .648, R^2 = .420, SD = 0.59 and the β = .648. Additionally, results also discuss the impact of PC on PI as the P-value < 0.05 R = .314. R^2 = .099, SD= .055 and the β = .314. Table 4 also explained that the impact of EC on PI have significant effect with values R =.204, R^2 =.042, SD= .125, β = .204 and (P =.000). The results of this study shows that all the variables ATT, SN, PBC, PC and EC have direct significance effect on PI.

Table 4. Regression Analysis

Direct Effect	R	R2	Standard Error	Beta Value	P Value
ATT → PI	.749	.561	.036	.749	0.000
SN→ PI	.483	.233	.048	.483	0.000
PBC → PI	.648	.420	.059	.648	0.000
PC → PI	.314	.099	.055	.314	0.000
EC → PI	.204	.042	.125	.204	0.000

Table 5. Hypothesis Results

Hypothesis	Content	Results
H1	"Attitude has positive impact on suboptimal food purchase intention"	Accepted
H2	"Subjective norms (SN) has positive impact on suboptimal food purchase intention"	Accepted
H3	"Perceived behavioral control (PBC) has positive impact on suboptimal food purchase intention"	Accepted
H4	"Price Consciousness (PC) has positive impact on suboptimal food purchase intention"	Accepted
H5	"Environmental concern (EC) has positive impact on suboptimal food purchase intention"	Accepted

VI. DISCUSSIONS

Table 5 summaries the verification of the hypotheses tested in this study. The main research objective in this study was to clearly identify the motivating factors regarding the suboptimal food purchase intention. TPB was used in this study to identify the consumer attitude and intention with the help of additional constructs like PC and EC. H1 and H3 were initially supported. The results of SPSS revealed that ATT, SN, PBC was important to purchasing suboptimal food. The findings of the study explained that consumer's purchase intentions regarding suboptimal foods are significantly affected by the consumer attitudes. Hence H1 is accepted. The results of H1 is consistent with prior studies (Tufail & Yaqub, 2021; Wong et al., 2018). Similarly, the results of H2 showed that SN has directly significant effect on suboptimal food purchase intention, which is similar to previous studies. On the other hand, results explained that PBC has significant effect on suboptimal food purchase intention. Thus, H3 is accepted. The results of H3 is

consistent with previous researches (Dean, Raats, & Shepherd, 2012; Wong et al., 2018; Zhou, Thøgersen, Ruan, & Huang, 2013). PC and EC were included as new components in the TPB model in this study showed the H4 and H5. The findings of the study showed that consumer purchase intention positively influenced by price consciousness. Hence, H4 is accepted, which is similar to the prior results drawn by (Stöckli & Dorn, 2021; Tsalis, 2020; Xu et al., 2021). At the end, results reveled that purchase intention positively influenced by the consumers who have environmental concern. Thus , H5 is accepted, which is related to previous literature (Tufail & Yaqub, 2021; Wong et al., 2018).

VII. CONCLUSION

The study's main objectives were twofold. First, the researchers wanted to see how the TPB could be used to investigate consumer intentions toward purchasing ugly foods. Second, the study aimed to improve the TPB's predictive potential by incorporating two more variables into it, namely price consciousness and environmental concern. The study's findings revealed three key discoveries. The first is proof that the TPB may effectively predict consumer intentions regarding the purchase of suboptimal foods when it comes to consumer intentions about the purchase of suboptimal foods. The second, however, is a partial support for the idea that the TPB's utility can be boosted even further by incorporating price consciousness and environmental concern measurements. To put it another way, both price consciousness and environmental concern appear to be useful constructs for better understanding and predictability of consumer intentions when it comes to purchasing inferior foods (suboptimal food). Finally, the study's third major finding is that personal attitudes, price consciousness, and environmental concern are all important determinants in determining consumer intentions toward suboptimal food among Pakistanis.

VIII. IMPLICATIONS

The findings of the study offer policymakers, marketers, and practitioner's advice on how to reduce suboptimal food consumption, increase consumer awareness of effective food waste reduction, and increase sellers' involvement in food waste management methods. First, the Punjab food authority can play an important role in educating customers about food waste management in order to encourage poor food awareness and food poverty. Through various activities such as seminars, webinars, workshops, and courses, social media platforms and educational institutions can disseminate information on food waste. Food waste management organizations and the government can use social media and mobile media platforms to communicate information about food waste. Second, in order to build successful public-private partnerships, food waste management firms and local governments should collaborate. Food waste reduction training programs for farmers and consumers should be made available. Finally, various parties involved in the food supply chain, including as retailers, manufacturers, logistics carriers, and food waste management firms, are encouraged to collaborate in order to promote suboptimal food.

IX. FUTURE RESEARCH AND LIMITATIONS

This study has some limitations, which are consistent with previous studies and provide recommendations for further research. First and foremost, the current research was undertaken in Pakistan. Future studies could be carried out in wealthy countries. Second, this was a cross-sectional study. Longitudinal studies could be done in the future. Third, while this study concentrated on fruits and vegetables, future research could explore on other food items. Fourth, this study's sample size was small, and a larger sample size should be used in the future. Fifth, this was a quantitative study. Future study can be carried out in nature as an experiment. Sixth, this study was used TPB constructs as independent variables. Future research can be used TPB constructs as a mediator variables. Lastly, price consciousness and environmental concern were incorporated with TPB. Future research could be done with other variables such as, sensory appeal, health consciousness incorporated with TPB.

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