

Determinants of Frozen Food Purchase Intentions : Insights from a Developing Country

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Abstract

This study highlighted the role of knowledge about frozen foods and focused on what traits will change consumers' intentions toward frozen food purchases. Further, it analysed how consumer attitudes toward frozen food acted as a mediator and family structure acted as a moderator in the relationships between knowledge of frozen food products, change seeking traits, and frozen food purchase intentions. Data was collected through a questionnaire based on adopted scales, and the sample consisted of 279 frozen food customers of branded and non-branded stores in Multan District, Pakistan. Exploratory factor analysis, confirmatory factor analysis, and multi-group moderation were conducted to provide statistical evidence for hypotheses. Knowledge about frozen foods and change seeking traits were found significant in predicting frozen food purchase intentions directly and through mediation. Additionally, family structure was found to be a significant moderator of the hypothesized path between attitude towards frozen food and frozen food purchase intentions. This study is the only one of its kind and helps to demystify frozen food purchase behaviour of consumers in a developing country like Pakistan, especially, in light of a changing social phenomenon, that is, shifting of joint family systems to nuclear family structures.

Keywords : frozen food, change seeking traits, purchase intentions, multi-group moderation

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The frozen food industry is growing rapidly and creating enormous opportunities for investors (Euromonitor International, 2014). Similarly, Solanki and Sheth (2015) found that frozen (ready to eat) food industry of India was growing at the fastest pace of 30% per year. In India, there are more than 100 international, national, and local producers of frozen (ready to eat) food in the industry, and the same number of players are expected to enter into the market in the coming year. This growth has led marketers to identify factors behind the consumers' intent to purchase frozen food. Despite the growing importance of this field, factors affecting frozen food choices are still under emphasized and latent, especially in the developing world. Although sizeable research and literature explain the factors affecting frozen food choices in the developed world, consistent and conclusive findings are rarely reported in emerging markets. For example, Wardle, Steptoe, and Oliver (2000) highlighted that knowledge about food nutrition was closely related to food purchase, but at the same time, many studies reported that frozen food purchase was not related with the knowledge level of the customers (e.g. Ailawadi, Neslin, & Gedenk, 2001).

This study intends to explain the determinants of consumer behavioural intentions to purchase frozen food

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products in the context of the theory of planned behaviour (TPB) in an attempt to add evidence to bridge the attitude - intentions gap. Attitude provides a basis for the behaviour towards an object (Fishbein & Ajzen, 1975), but this may not necessarily convert into actual purchase behaviour (Ajzen, 1991). An additional aspect of this study is to explain how nuclear and joint family systems affect the purchase of frozen food products.

Literature Review

Current drifts in food demand indicate that dietary consumption has transformed from home-cooked to the use of frozen food, with a rapid growth in the frozen food market (Euromonitor International, 2014). Reasons for this trend may include health - oriented issues, change-seeking traits, nutritional and sensory needs, psychological needs, and prevention of certain diseases (Ariyawardana & Prathiraja, 2003). Knowledge plays a very important role in our daily life and in decisions regarding the purchase of non-conventional products ; the importance of appropriate information regarding available products and product attributes is paramount. Literature reports that customers evaluate information about product features, quality, category, and available brands before buying (Belch & Belch, 1998 ; Bughin, Doogan, & Vetvik, 2010), which support the current study's point of view. Similarly, customers show positive intention towards the purchase of products about which they have sufficient knowledge (Alba, 1983; Vaughn, 1980) and this can also be true for frozen food products.

Furthermore, in certain cases, the importance of knowledge supersedes the exchange benefits. For instance, Towler and Shepherd (1992) reported that consumers gave more importance to product knowledge than to convenience and price, in this case, if consumers had knowledge about frozen food, they most probably bought it. Thus, product knowledge about a product is one of the major factors shaping consumers' attitudes regarding purchase decisions.

Jayanthi (2015) said that the Indian food market can grow at a high pace if knowledge of the customers regarding different food products is increased. Furthermore, she found that only 14% of the organic food customers were sufficiently aware about the same, and that the knowledge of food had a great impact on the purchase intentions of customers of organic food items. Similarly, consumers who are more knowledgeable and have the capability to make informed decisions are less anxious as compared to those who lack adequate product information (Swinyard, Rinne, & Kau, 1990) and they may feel confident while buying frozen food also. Regardless of the product category, attitudes based on product knowledge are more likely to convert into actual purchase decisions (Kallgren & Wood, 1986). Similarly, David, Suniti, and Amalendu (2012) observed that customer knowledge about a product played a very important role in its purchase, especially when it was produced in another country.

The impact of knowledge on purchase decisions is even more important when people are conscious about their health and are anxious to know about the food they are eating ; in this way, their knowledge can also change their attitude towards buying frozen food. Based on the available literature's evidence about product knowledge and its impact on purchase intention, it can be inferred that knowledge changes the attitudes of people towards food just as it changes attitudes towards other objects (Shepherd & Stockley, 1987). Based on these evidences, we can propose that:

- ↪ **Hypothesis 1:** Knowledge about frozen food will positively affect attitudes towards frozen food.
- ↪ **Hypothesis 2 :** Knowledge about frozen food will positively affect frozen food purchase intentions.
- ↪ **Hypothesis 3 :** Attitude towards frozen foods will positively mediate the relationship between knowledge about frozen foods and the intent to purchase frozen foods.

Change seeking traits is another factor affecting customers' attitudes and intentions to purchase frozen food.

Change seeking is a personality trait that can be defined as the eagerness to take different kind of risks such as physical, social, legal, and financial, just for the sake of trying something new (Zuckerman, 1994). Thus, people having change seeking personality traits may try frozen food just to change taste or to give a try to new food. Change seeking traits produce curiosity in the minds of the customers to try something unusual in order to satisfy the need for change and break monotony and as frozen food is a bit new type of food in Pakistan, so customers can also try this food. Research on food variety reports that people try different types of foods just to “check them out” and to “change their taste” (Gordon & Foxall, 1993; Inman, 2001). In addition, the shopping experience and the products that service hedonic needs create satisfaction (Assaker, Vinzi, & O'Connor, 2011).

Contradictory to the findings of Zuckerman (1994), Gordon and Foxall (1993), and Inman (2001), there is a stream of research studies that highlighted the negative attitude of customers towards new products when risk factors were considered. For example, if people know how frozen food is cooked or unhygienic condition of the kitchens, they may not buy it. Fortunately, this study is not concerned with the health related issues but with the factors affecting frozen food purchase intentions. Usually, customers avoid novel products to avoid physical, financial, or mental loss (Fragaszy & Mason, 1978), which means there is a negative trend towards novelty products, especially when such products are of higher sensitivity. However, this attitude depends upon the personality type. Personality is an important aspect worth discussing in the context of change-seeking behaviour of customers. Lynn and Snyder (2002) stated that people adopted different habits or eat different types of food to satisfy their psychological needs of being unique and different. Again, another finding supports the current study's view.

Similarly, consumers look for fashion trends, and always try to use the latest and fresh arrival of all products having a different variety to choose from (Nordin, 2009), and similar can be the case with frozen food products. Further, modernized fashion consumers like new trends, and show positive intentions towards new products, especially for counterfeit products (Harun, Bledram, Suki, & Hussein, 2012). In addition, Hidayat, Hema, and Diwasasri (2013) found a positive relationship between new favourite products of consumers and their attitudes toward pro fakes. Normally, change seeking is linked with exploratory types of activities based on novel stimulation (Cloninger, Svrakic, & Przybeck, 1993) and as frozen food is a novel food in developing countries, so, for a change, customers may also explore it. Further, they included that change seeking traits may force people to search for new objects of interest. People who have strong change seeking traits try new things, usually make impulse decisions, and have an extravagant personality. In addition, people who have strong change seeking traits try new things to maximize their satisfaction (Loranger, Jance, & Sartorius, 1997) and frozen food compared with many other types of food is a new food. This type of satisfaction relates to psychological satisfaction, which has multiple facets. For instance, exploration and curiosity are two distinct dimensions of change seeking traits, which compel customers to choose different products (Fragaszy & Mason, 1978), thus satisfying their need of knowing a new thing and having a sense of achievement. In the same way, customers can have a sense of achievement by knowing and choosing a new type of food (frozen food).

In addition, the literature has many studies that discussed change seeking personality traits and their impact on purchase intentions (Mary & Paul, 1967). Mary and Paul (1967) stated that change seeking is an internal driver and external force, which motivates individuals to search for new information and try new products. In other words, it changes individuals' attitudes towards different objects as frozen food. One aspect of change seeking is searching for new and potentially discrepant information ; whereas, the other aspect is searching for new products based upon new information (Fiske & Maddi, 1961). For instance, people who have very strong change seeking personality characteristics will be keen to visit previously unvisited places and try new types of food which they have not used previously (Fiske & Maddi, 1961). Based on these evidences, we may hypothesize that:

↪ **Hypothesis 4** : Change seeking traits will positively affect attitudes towards frozen food.

↪ **Hypothesis 5** : Change seeking traits will positively affect purchase intentions surrounding frozen food.

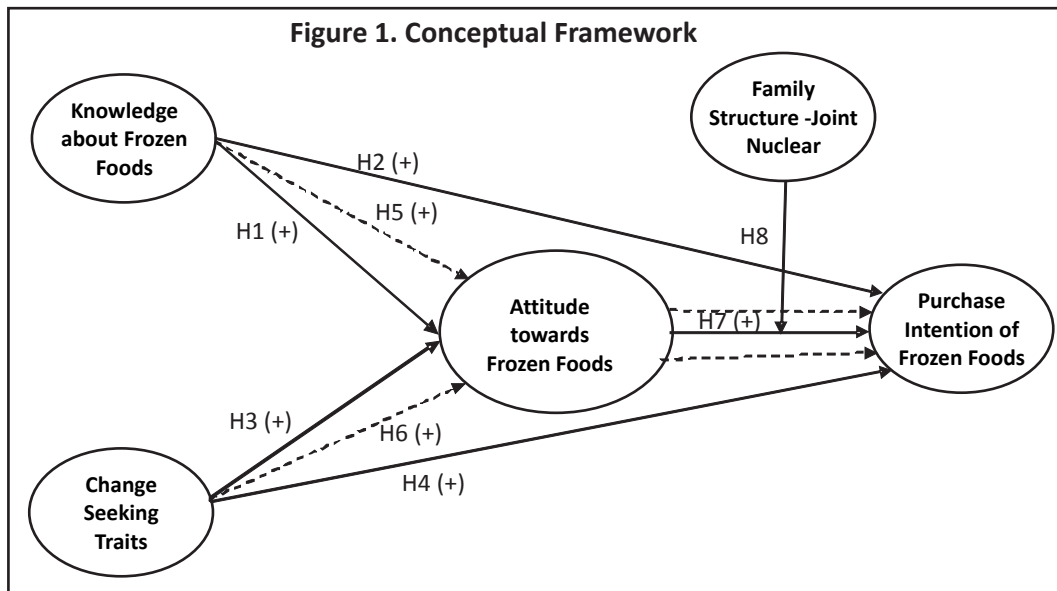
↳ **Hypothesis 6 :** Attitude towards frozen foods will positively mediate the relationship of change seeking traits and the intent to purchase frozen foods.

Family structure means different types of family systems or groupings with specific family members. If a family consists of a pair of parents and their children, it is called a nuclear or a separate family. A family consisting of nuclear family members and uncles, aunts, and/or grandparents is called a joint family. Family structure has a significant impact on the purchase of a convenience meal. Family values and unwritten rules restrict customers' buying decisions. Osborne and McLanahan (2007) found that family structure played a moderating role in shaping purchase decisions, and in growing families with joint family systems, the use of convenience food was a less feasible option than in nuclear family systems. Thus, family structure may also moderate the relations among constructs of this study. Family values differ from family to family. These family values influence the personalities of family members and their decision-making tendencies. Similarly, family values may also influence food customers' food choices. If one family system generates optimist, outgoing, extravagant, and creative and novelty seekers, another may produce pessimist, thrifty, and depressive personalities. Therefore, one family system may like frozen food, another may not as different families have different types of personalities and values. Usually, it is thought that joint families have strict rules and values and expect a lot from their children due to competition with the cousins as compared to nuclear families (Aidrus, 2011). This means people take actions which resemble their personality. Furthermore, Kakati and Ahmed (2015) found in Indian families that different family structures affected customers' food purchase intentions. They added that mostly in joint families, elders took the decisions and in nuclear families, both husband and wife had different roles while children played the role of initiators, influencers, and sometimes, deciders. Additionally, Peterson (2009) found that a family is responsible for a typical type of personality in its members and it is the family, which helps its members to develop life skills. Lopata (1973) found that family systems not just developed confidence and good personality in its members (so that they may behave well), but encouraged each family member and gave them emotional support. In the same way, family systems may also affect family members' food choices.

Family structures do have an impact on customers' behavioral intentions. Family values, rules, and regulations can restrict customers' buying decisions. Additionally, Osborne and McLanahan (2007) found that family structures either played a moderating or direct role in the behavioral intentions of people. Based on these evidences, we may hypothesize that:

↳ **Hypothesis 7 :** Purchase intentions with regard to frozen food among customers within a nuclear family system will differ significantly from those in a joint family system.

↳ **The Theory of Planned Behaviour :** Attitude is an evaluation of someone's beliefs, thoughts, or concepts (Feldman, 2012). Favourable attitudes are expected to convert into desired behavioural intentions if behavioural controls are existent. Ajzen (1991) presented an extension of the theory of reasoned action (TRA). The theory of planned behaviour (TPB) states that a positive attitude towards a product will translate into purchase intentions if not impeded by extraneous factors (Ajzen, 1991). Thus, a positive attitude towards frozen food will be converted into frozen food purchase. Primarily, behavioural intentions are dependent upon positive attitudes as attitudes produce similar behaviours (Schiffman & Kanuk, 2004). In the case of frozen food, similar behavioural intentions to the frozen food attitude will be buying the frozen food. In addition, the theory of planned behaviour explains the gap between attitude and intentions to purchase by introducing the concept of behavioural controls (Ajzen, 1991). In this study, family structure acts as a behavioural control. This study adds family structure as a significant behavioural control of the relationship between attitude towards frozen foods and frozen food purchase intentions. Thus, we may propose that :



↳ **Hypothesis 8** : Attitude towards frozen foods will positively affect the intent to purchase frozen foods.

The conceptual framework of the study is depicted in the Figure 1.

Methods

(1) Participants : The population for the study comprised of customers visiting the branded stores of Multan district in Pakistan. Multan is divided into four major towns namely Musa Pak, Mumtazabad, Shershah, and Shah Rukne Alam. Further, this study was conducted within a time period of 12 months, starting from the first week of January 2015 to the last week of December 2015. Based on the list of branded stores obtained from five major frozen food brands in Pakistan including K&N's, Menu, PK, Dawn, and Monsalwa, five branded superstores were conveniently selected from each town. Moreover, five non branded superstores, having the availability of the above-mentioned brands, were also selected from each town. The survey was done over a period of five weeks. A total of 875 customers were contacted and requested to fill the questionnaire from all selected stores ; 342 customers agreed to provide responses of which 279 were used for analysis. The remaining questionnaires were discarded because of incomplete answers.

(2) Measurement Instrument : A self-administered questionnaire was used to collect the data. Knowledge about frozen food was measured by an eight-item scale (e.g. 'I feel quite knowledgeable about frozen food') from Flynn and Goldsmith (1999). Similarly, change seeking traits were measured by seven items (e.g. 'When things get boring, I like to find some new and unfamiliar experience') based on Campbell and Goodstein (2001). To measure attitudes towards frozen foods, we relied on Yi and Jeon (2003) with four measured items (e.g. 'I like frozen food more than many others'). Finally, intent to purchase frozen food was measured with seven items (e.g. 'The likelihood of purchasing frozen food product is high') adopted from Grewal, Krishnan, Baker, and Borin (1998). Regarding family structure, we used a dummy orientation with '1' representing 'joint family' and '2' representing 'nuclear family'. The scale showed satisfactory internal reliability ($\alpha = 0.892$). Responses on all items were recorded on a 5 -point Likert scale (1 being 'Strongly Agree' to 5 being 'Strongly Disagree').

(3) Data Analysis : SPSS (v.23.0) was used for data analysis. First, a demographics analysis of the respondents was conducted followed by measurement and structural model verification. PROCESS macro for regression analysis was used to test direct and indirect paths (Preacher & Hayes, 2004). Analysis of data took place in four steps. First, exploratory factor analysis (EFA, using SPSS v.23.0) and confirmatory factor analysis (CFA, using AMOS v. 23.0) were conducted in order to confirm the factor structure and remove items with low factor loadings. Second, invariance analysis was conducted in order to ensure that the measurement model yielded a comparable representation in both family structures. Third, the discriminant validity of the constructs was assessed and finally, PROCESS macro was used to estimate the direct and indirect effects.

Analysis And Results

(1) Measurement Model : This study used the principal axis factoring as a rotation method suggested by Fabrigar and Petty (1999). Knowledge about frozen food (*KFF*) initially consisted of one dimension having eight items and this dimension is the same as the original construct, which was restricted to one factor during extraction through exploratory factor analysis (EFA). The analysis yielded seven items that were significantly correlated with the underlying construct, whereas one item was deleted due to low factory loading ($\lambda < 0.5$) following the recommendations of Bagozzi and Yi (1988). Similarly, change seeking traits (*CST*) had only one dimension with seven items. After EFA, three items (*CST1*, *CST6*, and *CST7*) were deleted because of poor loading (Bagozzi & Yi, 1988). Attitude towards frozen food (*AFF*) had only four items and all were found to have adequate factor weight. Lastly, frozen food purchase intentions (*FFPI*) was exposed to EFA and six of its items were retained with adequate loading while one (*FFPI2*) was dropped due to low factor weight (Bagozzi & Yi, 1988). In addition to EFA, confirmatory factor analysis was conducted for each construct of the study, which further removed the items with inadequate factor loading or squared multiple correlation (Bagozzi & Yi, 1988). A summary of constructs is given in after this procedure, the final measurement model included 19 items. Analysis of fit indices reveals that the model is adequately fit with $\chi^2/df=2.325$, $IFI=0.934$, $TLI=0.913$, $RMSEA=0.069$, $CFI=0.933$ (Table 3).

In order to check the convergent and discriminant validity of the constructs, the average variance extracted (AVE) between constructs' correlations and square root of AVEs were estimated. Convergent validity of the constructs is confirmed if AVE of the construct is greater than 0.5. In our case, the AVE of constructs *KFF* and *CST* is lower than 0.5. According to Fornell and Larcker (1981), if the AVE of the construct is less than 0.5 but its composite reliability (CR) is greater than 0.6, its convergent validity is ensured. The composite reliability of *KFF* and *CST*, as reported in the Table 1, is greater than 0.6, which confirms its convergent validity. On the other hand, discriminant validity of the construct is acceptable if the square root of the AVE of the construct is greater than its correlation with other constructs (Fornell & Larcker, 1981). The results reported in the Table 2 confirm that the discriminant validity of the constructs is satisfactory.

(2) Estimate of Direct Paths : The results of the direct effect model are reported in Table 4. Regarding Hypothesis 1,

Table 1. Overview of Scale, Reference, and Reliability

Scale	Reference	Number of Items		Cronbach's Alpha	Composite Reliability (CR)	AVE
		Before CFA	After CFA			
<i>KFF</i>	Flynn & Goldsmith (1999)	8	4	.737	0.704	0.402
<i>CST</i>	Steenkamp & Baumgartner (1995)	7	5	.679	0.726	0.447
<i>AFF</i>	Yi & Jeon (2003)	4	4	.778	0.761	0.535
<i>FFPI</i>	Grewal et al. (1998)	7	6	.806	0.824	0.569

Table 2. Correlation, AVE, and Square Root of AVE

	1	2	3	4
<i>KFF</i>	0.634			
<i>CST</i>	0.632**	0.668		
<i>AFF</i>	0.485**	0.389**	0.731	
<i>FFPI</i>	0.446**	0.495**	0.719**	0.754

** Significant at $p < 0.01$, Square root of AVE is given at diagonal in bold.

Table 3. Overall Measurement Model Fit Indices

Fit Indices	Overall Measurement Model Final (19-items)
<i>CMIN/df</i>	2.325
<i>IFI</i>	0.934
<i>TLI</i>	0.913
<i>CFI</i>	0.933
<i>RMSEA</i>	0.069

Table 4. Coefficients of Direct Effect

Antecedent	Consequent					
	Attitude towards Frozen Foods			Y (Purchase Intentions of Frozen Food)		
	Coefficient	SE	P	Coefficient	SE	P
Knowledge about Frozen Foods	0.652	0.066	0.000	0.262	0.083	0.001
Change Seeking Traits	0.254	0.074	0.000	0.313	0.071	0.000
Attitude towards Frozen Foods	-	-	-	0.216	0.056	0.000

the results show that knowledge about frozen foods (*KFF*) positively affects attitude towards frozen food products (*AFF*) ($\rho < 0.05$, $\beta = 0.652$). Thus, Hypothesis 1 is accepted. The results correspond strongly to the literature and confirm existing findings (Loyd & Gressard, 1986). Furthermore, analysis of the data reveals that there is a significant relationship between knowledge about frozen foods (*KFF*) and frozen food purchase intention (*FFPI*) ($\rho < 0.05$, $\beta = 0.262$). Hence, Hypothesis 2, which states that 'knowledge about frozen food will positively affect frozen food purchase intentions', is supported. This result corresponds to previous studies in which it was found that knowledge about food had a positive effect on frozen food purchase intentions (Ariyawardana & Prathiraja, 2003).

In testing the significance of the relationship between change seeking traits and attitude towards frozen food products, we found that change seeking traits have a significant direct effect on attitude towards frozen food products ($\rho < 0.05$, $\beta = 0.254$). Hence, Hypothesis 3 is supported. Looking at the direct effects of *CST* on *FFPI*, the results suggest that change seeking traits have a significant positive impact on frozen food purchasing intentions ($\rho < 0.05$, $\beta = 0.313$). Rolls, Rolls, Rowe, and Sweeney (1981) found a similar relationship in that humans have biologically built-in traits that make them bored with the same things (e.g. same food), thereby enticing them to buy something new (e.g. new frozen food). Thus, the results support Hypothesis 4, stating that change seeking traits have a positive effect on frozen food purchase intentions. The impact of attitude towards purchase intention also receives significant support ($\rho < 0.05$, $\beta = 0.216$), thus Hypothesis 5 is accepted. Hypothesis 7, which states 'Attitude towards frozen foods will positively affect the intent to purchase frozen foods' is also supported at ($\rho < 0.05$ or $\rho = .002$).

Table 5. Results of Mediation Analysis

Sobel	Value	SE	z	p
Indirect Effects and Significance Using Normal Distribution				
Knowledge about frozen food	0.105	0.044	2.378	0.017
Change Seeking Traits	0.055	0.023	2.516	0.011
Effect	<i>M</i>	<i>SE</i>	<i>LL 95% CI</i>	<i>UL 99%CI</i>
Bootstrap Results for Indirect Effects				
Knowledge about frozen food	0.105	0.045	0.022	0.203
Change seeking traits	0.055	0.022	0.021	0.112

Note: $n = 279$. Unstandardized regression coefficients are reported. Bootstrap sample size = 10,000. *LL* = Lower Limit; *CI* = Confidence Interval; *UL* = upper limit

(3) Estimate of Indirect Paths : In order to test Hypotheses 6 and 7, we adopted a bootstrap approach. As argued by Preacher and Hayes (2004), a mediational analysis based on formal significance tests of indirect effect ab through Sobel's (1982) test is more powerful than a stepwise procedure (Baron & Kenny, 1986). In order to test the mediation analysis, we utilized PROCESS macro in SPSS (Preacher & Hayes 2004). A criticism on the application of Sobel's (1982) approach states that it requires a normal distribution of ab , which is not typical (Edwards & Lambert, 2007). This is the reason why the use of bootstrapping is paramount, as the issue of power problems due to non-normal sampling distributions of an indirect effect can be avoided by the use of bootstrapped confidence intervals (CIs) (MacKinnon, Lockwood, & Williams, 2004).

The results of the mediation analysis are reported in the Table 5. In support of Hypothesis 6, attitude towards frozen foods mediates the relationship between knowledge about frozen foods and purchase intentions in regard to frozen foods ($\beta = 0.105, p < .05$). Furthermore, the test of significance assuming normal distribution confirms that the indirect is significant ($z = 2.378, p < 0.05$). Bootstrap results confirm the Sobel test, with a bootstrapped 99% CI around the indirect effect not containing zero (0.022, 0.203).

Similar to the findings of Hypothesis 6, results indicate that attitude towards frozen food products mediates the relationship of change seeking traits with the intent to purchase frozen food ($\beta = 0.055, p < .05$). The results of the Sobel test, assuming normal distribution, confirm that the indirect effect is significant ($z = 2.516, p < 0.05$). Furthermore, the bootstrap results demonstrate that the Sobel test with a bootstrapped 99% CI around the indirect effect did not contain zero (0.021, 0.112).

(4) Multi-Group Invariance Analysis : Multi-group moderation tells us how two groups are different from each other. In the current study, the two groups are joint family and nuclear family. The moderation test is significant since the difference in chi-square value between the constrained and unconstrained model is greater than 3.84. The difference in chi-square value ($\Delta\chi^2$) is 31.369, while the difference in degrees of freedom (df) is 12. For the test to be significant, the difference in chi-square value ($\Delta\chi^2$) must be higher than the value of chi-square with 1 degree of freedom, which is 3.84 (Steenkamp & Baumgartner, 1998). This verifies that the two groups in this study are significantly different, further providing support for Hypothesis 8.

Discussion and Conclusion

The analysis shows that all the hypotheses are accepted and similar results have been observed in previous studies conducted in the same field. This study confirms the results from earlier studies explaining a positive relation between knowledge about frozen food, change seeking traits, and purchase intentions towards frozen food. As

David et al. (2012) observed, customer knowledge about a product plays a positive role in its purchase, especially when it is produced in another country. Similarly, Lynn and Snyder (2002) stated that people seek change in their food, a different food from the routine to satisfy their psychological needs of being unique and different.

Furthermore, the hypotheses were tested using Bootstrapping technique by setting UL 99% CI and the LL 95% CI. All the results are within the threshold values. The understanding of how knowledge about frozen food and change seeking traits influence frozen food purchase intentions and whether these effects differ across various family structures are the core questions addressed in this study. The study further contributes to the growing awareness that firms may need to build their strategies in accordance with customers' knowledge about frozen food and their personality traits. In this study, two different family structures were selected for a comparison because of shifting socio-demographic parameters in urban areas of South Punjab, Pakistan. The findings reveal that the emerging nuclear family system is an important indicator of purchase intentions towards frozen foods. The results also suggest that knowledge regarding frozen food has a positive relationship with both frozen food purchase intentions and attitude towards frozen food, and this adds to existing literature. The mediation effect of attitude towards frozen food is also significant in this context, which further augments that a positive attitude towards frozen food helps translate knowledge and can affect the intent to purchase frozen food. It is thus advisable that firms should increase their sales first by understanding the personality traits related to food purchase intentions and second, increasing the product knowledge of their customer base. With respect to the relationship between change seeking traits and frozen food purchase intentions, the results indicate a positive significant effect. This relationship is mediated by attitudes towards frozen food. When people have a change seeking personality, they may have a changing attitude towards products as they derive satisfaction through variety in their choices.

This study provides a detailed analysis of how knowledge about frozen food and change seeking traits positively affect intentions surrounding frozen food. Previous studies also portrayed the same findings; however, from a developed country's perspective. This study is unique as it examines customers' food knowledge and behavior from a developing country's perspective, where the context is different. The current findings resemble previous studies. Knowledge about frozen food and change seeking traits were found to have a positive relation with intentions surrounding frozen food. Similarly, Gray (1987) assessed that change-seeking temperament was composed of a set of traits not only characterized by the approach reaction to novel objects or risk situations, but also by the disposition to buy unique objects. Especially, change-seeking traits direct a person to buy a specific product different from the usual. In the same way, knowledge about frozen food influences customers to buy frozen food.

Managerial Implications

The present study provides valuable insights and guidelines for marketers of frozen food brands. The findings highlight that the frozen food market needs to observe the predictors of customer behaviour that are causing an increase in this market. Thus, by focusing on customers' knowledge about frozen food and their change seeking traits, marketing managers can develop ideal strategies to capitalize on this growing market and maximize profits. Marketers need to provide fair and ample information about the product in their marketing campaign in order to educate the customer about a brand. The change-seeking traits of customers also create curiosity towards something novel or unusual. New variants in the brands can satisfy customers' pursuit of new products. Moreover, marketing campaigns should be focused on highlighting the factor of convenience to attract the emerging segment of nuclear families.

Academic Implications

This study is an important contribution to the field of research in this area as it supplements the current literature

with a new scale that addresses the issue of “purchase intentions surrounding frozen food” from the perspective of customers from a developing country like Pakistan. It is evident through the literature review that the concepts of knowledge about frozen food and change seeking traits in relation to frozen food purchase intentions are neglected. Therefore, this study fills this gap. Another contribution of this study is a new yet simple conceptual framework that can be applied in future studies in the same direction and with more complex arrangements of the constructs.

This study has introduced a new perspective of studying purchase intentions ; specifically, the mediating effect of attitude towards frozen food by understanding the relationship between customers' knowledge about frozen food and change seeking personality and the increase or decrease in the purchase of frozen food. Furthermore, this current study explores how different customers' family structures influence their buying habits.

Limitations of the Study and Scope for Future Research

As the study was conducted with a few constructs, it is possible that a number of exogenous variables may not have been considered, and which could possibly have an influential impact on the dependent variable. Therefore, new constructs can be added into the model, including convenience, price, packaging, taste, and health consciousness. In order to have a true understanding of behaviour, longitudinal analysis can be performed as time can affect the results of the research. Due to time constraints, the data was collected only from customers of frozen food outlets and superstores in Multan district. Due to the varying socio-demographics and culture of the country, the study may have different findings if data is collected from a balanced mix of all major cities. A comparative analysis in this regard can provide more useful insights. In addition, some other constructs like price and convenience can be added into the same model for further studies.

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