EXPLORING THE ROLE OF HEALTHY FOOD KNOWLEDGE ON BEHAVIOR INTENTIONS OF CONSUMER TOWARDS RESTAURANTS

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Abstract

Sustaining customer satisfaction and revisit intentions of the fast food restaurants has become crucial problem for survival in this intense competition. Therefore, this study addressed this problem by conducting this research to investigate the factors effecting customer satisfaction and revisit intentions of the fast food customers in the city of Faisalabad. This study also filled the theoretical gap in the literature by considering Dinex, healthy food knowledge, perceived value's effect on revisit intentions through mediation of customer satisfaction. For this purpose, quantitative approach was used, and self-administrated questionnaire was provided to the customers of the fast food restaurants in Faisalabad who have at least visited them twice. Sampling technique used for this study was convenient due to the difficulty in finding appropriate sample. 220 of sample size was used after removing inappropriate and unfilled

responses. Partial Least Square Structural Equation Modeling (PLS-SEM) was employed through Smart PLS software. Measurement model ensured the validity and reliability of the constructs. Total seven direct and three indirect hypotheses were proposed in the study. Structural model examined the hypothesis testing and its significance. Findings of the study showed that all direct relationships were positive and significant except effect of healthy food knowledge on revisit intentions. Mediation effects of Dinex, healthy food knowledge, perceived value was significant through customer satisfaction on revisit intentions. Implications of the study includes use of this study for enhancing customer satisfaction and revisit intentions of the customers to gain competitive advantage.

Key Words: Dinex, PLS-SEM, Healthy food knowledge, perceived value, Customer satisfaction, Revisit intentions

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Introduction

The world is facing numerous health problems due to unhealthy food such as obesity, heart and respiratory diseases (Goldschmidt et al., 2012; Jawed et al., 2020). Unhealthy food means a food contains less nutrients and unhygienic atmosphere of the cooking area. Jawed et al. (2020) discussed that obesity is one of the leading causes of chronic health problems. The world obesity figures were tripped from 1975-2016. These facts and figures of the world about obesity shows the importance of healthy food and demand good practices from the restaurant industry.

Similarly, the statistics of obesity are alarming in Pakistan and rapidly increasing due to unhealthy food and unhygienic conditions of the cooking area (Jawed et al., 2020). This alarming situation calls the attention of the public and restaurant owners to improve their food quality and hygiene to cover obesity and other related diseases. Recently, many restaurants started working to nutritional labeling in the menus. For instance, the study of Hwang and Lorenzen (2008) found that the restaurants consumers show positive attitudes towards healthy food, low-calorie diet, and hygienic atmosphere. To gain growth in business, the food service organizations try to improve their healthy food options (Story et al., 2008). So, there is need to study that what factors influencing the restaurant consumers towards revisit intentions.

This research examines the influence of healthy food knowledge, perceived value, DinEx, on customer satisfaction and revisit intentions. To achieve this purpose, the study used Stimuli

Organism and response model (SOR). SOR model is helpful to deal the situation containing stimuli's (healthy food knowledge, perceived value, DinEX), organism (customer satisfaction), and response (revisit intentions). The present study contributes to the body of literature of SOR and healthy food restaurant. Moreover, this study is useful for the restaurants that what factors contribute to the growth of restaurants.

Theory and Hypothesis Development

This study used SOR model of Mehrabian and Russell (1974) to examine the role of healthy food knowledge, perceived value, DinEX on customer satisfaction and revisit intentions. SOR stands for stimuli, organism, and response. The constructs of this study such as healthy food knowledge, perceived value, DinEx (stimuli), customer satisfaction (organism), and revisit intention (response). Therefore, subsequent literature and hypothesis follows this sequence:

Healthy Food Knowledge

Healthy food knowledge defined as the awareness of the consumer about the nutritional aspects of the food. Existing literature on healthy food knowledge shows significant impact of healthy food knowledge on customer satisfaction. For instance, the study conducted by Coulson (2000) examine the association between food labeling knowledge on consumer healthy food choices on college students, the findings show significant relationship between them. Conversely, the study of O'Dea and Abraham (2001) show that the consumers having less knowledge of healthy food shows poor eating habit and consume food which is not good for health. Moreover, existing literature on healthy food knowledge demonstrate that people gain nutrition related to knowledge to improve their food consumption choices in future (Mahon et al., 2006). Hence, the subsequent hypothesis is posited as:

H1: Healthy food Knowledge positively influence customer satisfaction.

DinEx

DinEX is referred to the feelings of restaurant customers about food, service quality and ambiance. This scale was designed to create significant impact on the restaurant customer. Due to complex nature of this scale, the relationships are still challenging and needs further exploration. For instance, the study Lie and Jang (2009) examined DinEX in the Chinese

restaurants in USA and established that tasty food, friendly nature of employees and ambiance of the restaurant are influential factors to create customers satisfaction in restaurant sector. Similarly, the study of Rye and Han (2010) found that DinEx positively related to the customer satisfaction, which further influence behavioral intentions of the customers of restaurant. Moreover, Heung and Gu (2012) found that atmospheric factors influence the customer satisfaction. So, it is postulated that:

H2:DinEx positively influence customer satisfaction.

Perceived Value

Perceived value is referred to as the comparative analysis of value received in form of product or service and value given in form of resources. Previous literature discussed the association between perceived value and eating behaviors. For instance, the study of Brady & Cronin (2001) shows that perceived value significantly influence the behavioral intentions. Similarly, existent literature discussed the importance of perceived value in forming intention and customer loyalty is pivotal (Gallarza&Saura, 2006). Moreover, Cronin et al. (2000) elaborate that perceived value is better predictor of customer intention. In the context eating behavior, the study of Lee (2007) found that perceived value better perform significantly influence customer satisfaction. So, subsequently, it is proposed that:

H3: Perceived value positively influence customer satisfaction.

Customer Satisfaction

Customer satisfaction means that the performance and quality of the products and services meets the expectations of the customers. Existing literature of food service shows the role of perceived value towards satisfaction and revisit intentions (Lee et al., 2007;Ryu& Han, 2010). Satisfaction holds the crucial role in the context of foodservice. For instance, existing literature discussed the association of customer satisfaction with perceived value, food and service quality, physical ambiance, and perceived (Ryu and Han, 2010). Hence, this study proposed that:

H4: Customer satisfaction positively influence on revisit intention.

H5: Customer satisfaction mediates between the relationship of health food knowledge, DinEx, perceived value, and revisit intentions.

Revisit Intentions

Revisit intention means that the consumer of products or services is (not) willing to perform the similar behavior. Exiting literature on revisit intention shows the role of behavioral intention in foodservice context. For example, the study conducted by Webb and Sheeran (2006) found that behavioral intention is the antecedent of consumer behavior. The scholars of foodservice reported that behavioral intention is the outcome variable of customer satisfaction and perceived value and customer satisfaction (Coulson, 2000). Furthermore, the study of Deshpande et al., (2009) shows positive association among knowledge, perceived value, satisfaction, and intention.

METHODOLOGY

Epistemological stance for this study was positivism in which the researcher used the survey technique as the investigation approach.Quantative approach was employed. Using a self-administered survey method, data collection is performed through questionnaires. Further, it was a cross-sectional study where data are collected at a specific point in time from the population sample.

The questionnaires were taken very seriously by visitors who realized the importance of the research. The questionnaire package provided to each respondent was: 1) a cover letter explaining the study's significance and intent and seeking assistance and 2) a self-addressed return envelope. Further, it is requested from the respondent to return the filled questionnaires within 2 weeks. However, realizing the importance of the research, most respondents returned the completed questionnaire on the spot, but some respondent returned filled questionnaire between two weeks. Data collection from different food chains took 4 months.

This was achieved by obtaining a letter of consent signed by the respondents before they took part in the studies. At any moment, the respondents also had the right to quit from the research. In the data collection process, the element of voluntarism was maintained. The data obtained from the participants was held secret and by using anonymity, the privacy factor was adhered to seriously.

A convenience sampling approach (Bryman, 2016) has been used in this research to collect information from fast-food hotels visitors. It is a strategy for those participants who are selected based on their comfort and accessibility to fill out the questionnaire. However, only a

convenience sample is feasible in many studies because the researcher must use naturally formed groups or volunteers.

In this research, at least the respondent who has dine in the past in two fast food chains is selected as the analytical unit. The criteria of a minimum of 2 fast food chains visited are used to guarantee that the respondent involved in the studies has a clear knowledge of fast food quality and taste of various food products supplied during the visit by fast food chains.

Scales have been adopted from previous validated and reliable sources. Dinexwas adopted from Antun et al. (2010); healthy food knowledge from Dodd et al., (2005)and Shepherd & Towler, (1992); perceived value from Tam (2004); Customer satisfaction from Oliver (1980); Revisit intention from Maxham and Netemeyer (2002)and Namkung and Jang (2007).

G power was used for determining the sample size required for this study (Hair et al., 2016). Using 3 as number of predictors, alpha=0.05, effect size of 0.15 and power of 0.80 were applied. Minimum sample size was found to be 89 for this study. Questionnaires were distributed among the fast food chains' 350 visitors. Out of which 220 questionnaires were used after discarding improper and missing values. Response rate for this study was 62.86%. Therefore, sufficient sample size was taken.

Statistical tools Statistical Package for Social Science (SPSS 23) and SMART PLS 3.0 were used for data analysis purpose. Smart PLS was used because it performs better for investigating mediation, do not need to fulfill data normality assumptions, exploratory nature of the study (Hair et al., 2016).

RESULTS AND DISCUSSION

Demographics analysis was conducted using SPSS. It showed that most of the respondents were male (62.3 percent), age group is in between 21 to 30 years old (62.7 percent), income level wasbelow 30,000 (70.5 percent), qualification level was masters (58.3 percent) and work experience was in between 1 – 3 years (48.2 percent) as shown in Table 1.

Table 1:

Demographic Analysis

Variable	Category	Frequency	Percentage
Gender	Male	137	62.3
	Female	83	37.7
Age Group	Below 20 Years	53	24.1
	21 to 30 Years	138	62.7

	31 to 35 Years	26	11.8
	Above 35 Years	3	1.4
Income Level	Below 30,000	155	70.5
	30,001 – 40,000	34	15.5
	40,001 – 50,000	14	6.4
	50,001 – 60,000	8	3.6
	Above 60,000	9	4.1
Qualification	Bachelors	91	41.4
	Masters	128	58.2
	M.Phil./MS	1	0.4
Work Experience	Less than 1 Year	71	32.3
	1 – 3 Years	106	48.2
	4 – 6 Years	29	13.2
	7 – 10 Years	12	5.4
	Above 10 Years	4	0.9

Measurement model was utilized using the Smart PLS software algorithm command. Convergent validity, factor loading, discriminating validity, composite reliability and (AVE) have been explored for this purpose(Hair Jr et al., 2016). Some values below 0.7 cannot be further entertained in factor analysis and removed from assessment. These items were DH1, DSR2, DA1, DF3, DS4, DS5 and DS6 were removed from the model. Some item loadings are above 0.7 which was acceptable and suggested. 0.60 to 0.70 was acceptable in exploratory research. The table 2 indicates the CR, AVE and outer loading values of all items.The AVE values were above 0.5 for all reflective constructs(Hair et al., 2016), meaning that the measurement of all constructs had high convergent validity.The value of all reflective constructs had greater level of internal consistency reliability, greater than 0.70 (Hair et al., 2016). The findings highlighted the highest composite reliability for Dinex which was 0.893 and the value of other constructs is as follows: CS (0.858), HFK (0.838), PV (0.763), RI (0.853). Table 3 showed the results for discriminant validity evaluated through the Heterotrait and Mono-trait(Henseler et al., 2015). The results indicated that all the data found formulate the criteria which is less than 0.9 hence, there was no problem of discriminant validity.

Table 2:

Reliability and Validity of the constructs

Constructs and Items	Factor Loadings	CR	AVE
Customer		0.858	0.669

Satisfaction (CS)			
CS1	0.815		
CS2	0.838		
CS3	0.800		
Healthy Food Knowledge (HFK)		0.838	0.632
HFK1	0.772		
HFK2	0.829		
HFK3	0.783		
Perceived Value (PV)		0.763	0.525
PV1	0.550		
PV2	0.833		
PV3	0.761		
Revisit Intentions (RI)		0.853	0.539
RI1	0.674		
RI2	0.818		
RI3	0.772		
RI5	0.668		
RI6	0.725		
Dinex		0.893	0.501
DA2	0.677		
DA3	0.663		
DA4	0.618		
DA5	0.565		
DF1	0.695		
DF2	0.600		
DH2	0.545		

DSR1	0.677
DSR3	0.593

Table 3:

Discriminant Validity

Constructs	CS	Dinex	HFK	PV	RI
CS					
Dinex	0.815				
HFK	0.767	0.881			
PV	0.704	0.750	0.655		
RI	0.795	0.720	0.706	0.723	

The findings show that there was no problem of collinearity among the constructs. The collinearity problems between the constructs were assessed by validating VIF values that should not exceed 5(Hair et al., 2016).R-square values of 0.19, 0.33, and 0.67, respectively, are considered weak, moderate, and substantial, according to(Chin, 1998). Value of R-square, Revisit Intentions (endogenous construct) was 0.479, the combined effect of all independent variables can result in Revisit Intentions variation of 47.9 percent.Similarly, customer satisfaction was considered as mediator between three exogenous constructs (Dinex, HFK, PV) and revisit intentions as endogenous construct. All three exogenous constructs brought the change of 46.5% in customer satisfaction.
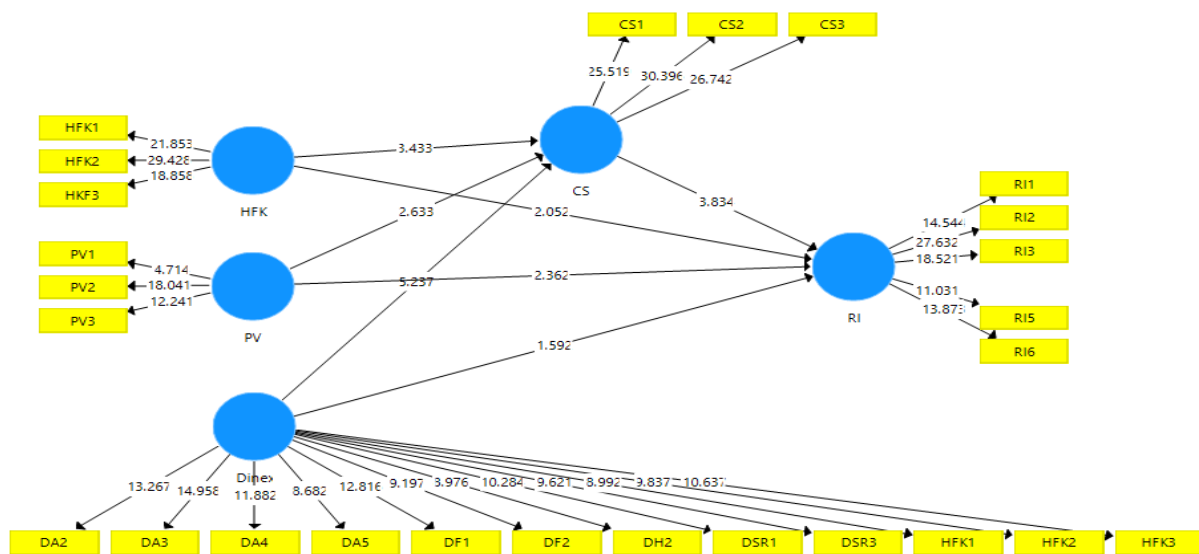

Figure 1.*Structural Model*

Bootstrapping procedure was followed by the researcher to verify hypothesis of the study. This procedure provides the values of path coefficient (Beta) along with standard deviation. T values were obtained by dividing beta with standard deviation. The investigator used the bootstrapping procedure based on 10,000 subsamples using the confidence interval of bias-corrected bootstrap using two tail as suggested by(Hair et al., 2016).

Total seven hypotheses were developed for this thesis for evaluating direct relationships. First hypothesis was accepted as seen from 0.000 p value and 3.834 t value. Path coefficient shows that 1 unit increase in customer satisfaction creates an increase of 0.351 in revisit intentions of the fast food customers keeping other variables constant. Findings of this study are consistent with previous studies such as(Bufquin et al., 2017).Similarly, the second hypothesis says that Dinex has a positive and significant impact on customer satisfaction. This hypothesis was also supported as seen from 0.000 p value and 5.237 t value.Path coefficient shows that an increase of 1 unit in Dinex increases 0.384increase in customer satisfaction keeping other variables constant. Results of this study are inconsistent with previous researches conducted by(Bufquin et al., 2017). Third hypothesis stated positive and significant association exists between Dinex and revisit intentions of the fast food consumers. This hypothesis was not accepted as seen from 0.0111 p value and 1.592 t value. Outcomes of this research was not aligned with recently conducted study byNamin, (2017).

Fourth hypothesis stated that positive and significant relationship exists between healthy food knowledge and customer satisfaction of the fast food consumers. This hypothesis was accepted as seen from 0.001 p value and 3.433 t value. Path coefficient shows that an increase of 1 unit in healthy food knowledge increases 0.256 increase in customer satisfaction keeping other variables constant. Again these findings are inconsistent with previously undertook study by(Lee et al., 2018) that showed insignificant relationship between these two constructs.Fifth hypothesis stated that positive and significant association exists between healthy food knowledge and revisit intentions of the fast food consumers. This hypothesis was also supported as seen from 0.040p value and 2.052 t value. Outcomes of this study are not in line with results of(Lee et al., 2018). Path coefficient shows that an increase of 1 unit in perceived value increases 0.154increase in customer satisfaction keeping other variables constant.

Sixth hypothesis stated that positive and significant relationship or association exists between perceived value and customer satisfaction of the fast food consumers. This hypothesis was also accepted as seen from 0.008 p value and 2.633 t value. Path coefficient shows that an increase of 1 unit in perceived value increases 0.181increase in customer satisfaction keeping other variables constant. Findings of this study are consistent with(Lee et al., 2018; Ryu & Han, 2010). Seventh hypothesis says that perceived has a positive and significant impact on revisit intentions of the fast food customers. This hypothesis was also supported as seen from 0.018 p value and 2.362 t value. Path coefficient shows that an increase of 1 unit in perceived value increases 0.191increase in revisit intentions keeping other variables constant. Outcomes of this study are also supported by(Lee et al., 2018) recently.

Table 4:

Direct Effects

Hypothesis	Relationships	Beta	S.D.	T-Value	P-Value	BCI LL	BCI UL
H1	CS -> RI	0.351	0.092	3.834	0.000	0.178	0.521
H2	Dinex -> CS	0.384	0.073	5.237	0.000	0.246	0.535
H3	Dinex -> RI	0.157	0.099	1.592	0.111	-0.021	0.368
H4	HFK -> CS	0.256	0.075	3.433	0.001	0.125	0.413
H5	HFK -> RI	0.154	0.075	2.052	0.040	0.006	0.302
H6	PV -> CS	0.181	0.069	2.633	0.008	0.045	0.302
H7	PV -> RI	0.191	0.081	2.362	0.018	0.028	0.341

Note: S.D. = Standard deviation, BCI = Bias Confidence Interval, LL = Lower limit

Three hypotheses were developed in the thesis regarding mediation analysis. First hypothesis stated that Customer Satisfaction mediates between Dinex and Revisit Intentions. This hypothesis has been accepted as can be seen from p value of 0.000 and t value of 3.330 with beta value of 0.160. Results of this study were dissimilar to the research undertaken by(Bufquin et al., 2017). Similarly, second hypothesis states that Customer Satisfaction mediates between Healthy Food Knowledge and Revisit Intentions. This hypothesis has also been accepted as can be seen from p value of 0.029 and t value of 2.183 with path coefficient value of 0.059. Findings of this study are consistent with recently undertook study by(Lee et al., 2018). Third hypothesis states

that perceived value mediates between perceived value and Revisit Intentions. This hypothesis has been supported as can be observed from t value of 2.011 and p value of 0.041 with beta value of 0.043. These results are aligned with recent study by(Lee et al., 2018). Thus, it can be concluded that all mediations exist, and relationships has been established.

Table 5:

Indirect Effects

Hypothesis	Relationships	Beta	S.D.	T value	P value	BCI LL	BCI UL
H8	Dinex -> CS -> RI	0.135	0.043	3.147	0.002	0.065	0.234
H9	HFK -> CS -> RI	0.090	0.037	2.457	0.014	0.034	0.192
H10	PV -> CS -> RI	0.063	0.028	2.296	0.022	0.018	0.124

Note: S.D. = Standard deviation, BCI = Bias Confidence Interval, LL = Lower limit, UL= Upper Limit

IMPLICATIONS

Implications of this study showed that Dinex concept which relates to overall service quality in fast food restaurants that includes food and service quality, atmosphere, social connectedness, food healthfulness can enhance the customer satisfaction and revisit intentions. It can act as guidance for the managers of the fast food restaurants to increase both satisfaction and revisit intentions at the same time. Food quality was one of the dimensions of the Dinex which considered effects of food taste. Quantity of food served to the customers and perceptions relevant to quality of food. These three points implications for the restaurant managers to maintain quality and portion or quantity served and expected value of price according to the requirements of the fast food customers in order to enhance customer satisfaction and revisit intentions. These findings are in line with(Namkung & Jang, 2007) and(Liu & Jang, 2009) who focused on the food quality for increasing customer satisfaction.

Findings of the study showed that healthy food knowledge positively and significantly affects customer satisfaction and revisit intentions in the fast food restaurants. Such findings have implications for the academia and practitioners that consumers of healthy food knowledge are willing to spend money and time for the consumption of healthy food. It shows that consumers

of healthy food knowledge have personal efficacy for healthy food and are willing to continue usage of heathy food, recommend other for it. It also reflects that consumers who perceive themselves as have healthy food knowledge give importance, value to it and satisfied with its consumption in the fast food restaurants of Faisalabad.

These results are empirically supported by the findings of the previous researches(Kim et al., 2013)found positive relationship between college student's dietary attitude and nutritional knowledge. In another study, consumers have different dietary behaviors according to their nutritional knowledge which is low, medium and high(Lee et al., 2018). Fast food restaurants need to realize and provide information about healthy food like calories, benefits of utilizing such diet. This information can be more helpful for the consumers of healthy food and might assist fast food restaurants in enhancing customer satisfaction and revisit intentions. Managers of such fast food restaurants can provide details regarding healthy choices for the customers along with nutritional information and ingredients on their websites to attract healthy food consumers. Moreover, modern technology has also helped the customers for getting awareness about healthy food. Fast food restaurants or companies can develop application for smart phones to provide information regarding healthy food choices and locations, also calculating calories for consumers such as provided by Samsung app. Ultimately, it will increase customer satisfaction and revisit intentions and market success in the long term.

Outcomes of the study revealed that perceived value affects customer satisfaction and revisit intentions of the fast food restaurant. Results are consistent with the findings of(Lee et al., 2014) who argued that prices are vital to the customers for visiting fast food restaurants. Fast food providing companies need to consider healthy food as well as price. They need to have perceptions that have been served well in comparison to the price paid. Such fast food restaurants can provide detailed information about the distribution channel, detailed nutritional benefits for menus and ingredients to the customers. Providing such information can win the trust of the customers and increase the overall perceived quality and value for them.

Ryu and Han (2010)found that restaurant image not only affects perceived value but also customer satisfaction in the fast food industry. It indicates that customer's evaluation process begins from restaurant image towards perceived value then towards customer satisfaction. Customer's satisfaction and revisit intentions are dependent on perceived value in the fast food

industry. Positive influence of perceived value of the customers on its satisfaction starts cognition triggers. Perceived value is a cognitive construct that is a tradeoff between sacrifice and quality whereas customer satisfaction is an affective construct because it's linked to emotions of the customers(Oliver, 1999). Similarly, perceived value which is cognitive construct which brings affective response by the customers.

Customer satisfaction not only predicted customer's revisit intentions directly in the fast food industry but also acted as mediator between Dinex, healthy food knowledge, perceived value and revisit intentions. It suggests implications for the fast food service providers to focus on customer satisfaction because not affects their revisit intentions but also a mechanism that defines relationship between varied factors and revisit intentions of the fast food customers. Customer satisfaction is the link between these factors (Dinex, healthy food knowledge, perceived value) and revisit intentions. Revisit intentions of the fast food customers can be enhanced keeping in mind these factors. Therefore, it's a challenge for the fast food industry or service providers to find innovative means to increase perceptions of the customers.

Limitationsand Future Directions

Every study has several limitations. Firstly, cross-sectional data were collected for this study. A longitudinal data could be collected in order to ensure causal relationship. Secondly, convenience sampling technique was used for this study. Probability sampling technique could be employed which is bias free and results can be generalized to the population. Thirdly, data were only collected from Faisalabad city. Data could be collected covering more geographical locations in order to generalize the results to more areas. Fourthly, sample size for this study was not appropriate but not sufficient enough due to limited time and resources. This deficiency could be overcome by increasing sample size of the study. Fifthly, this study only included few constructs in the study. Future researchers can include more constructs like mediation of restaurant image and moderation of demographics.

CONCLUSION

Main purpose of the study was to investigate the influence of Dinex, healthy food knowledge and perceived value on customer satisfaction and revisit intentions. Mediating role of customer satisfaction was also examined between Dinex, healthy food knowledge, perceived value and

revisit intentions in the fast food restaurants of Faisalabad.For this purpose, ten hypothesis were developed to examine the relationships among the constructs in the study under consideration. Quantative approach was employed. Cross-sectional data and self-administrated questionnaires were used for data collection. Data were collected from only those customers who had visited any fast food restaurant atleast twice. G power was used for determining sample size. 220 sample size was taken using convenience sampling approach. Scales were adopted from valid and reliable sources from the literature. SPSS was applied for providing details of demographics and Smart PLS for inferential analysis. Measurement model ensured validity and reliability of the constructs whereas structural model provided results of hypothesis. All the hypothesis were accepted except direct effect of Dinex on revisit intentions. Fast food owners, managers and staff members needs to focus on these constructs in order to increase revisit intentions of the customers.

REFERENCES

Brady, M. K., & Cronin, J. J. (2001). Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *The Journal of Marketing, 65*(3), 34–49.
doi:10.1509/ jmkg.65.3.34.18334

Coulson, N. S. (2000). An application of the stages of change model to consumer use of foodlabels.*British Food Journal, 102*(9), 661–668.
http://doi:10.1108/00070700010362031

Cronin, J. J., Brady, M. K., &Hult, G. T. (2000).Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments.*Journal of Retailing, 76*(2), 193–218.
https://doi:10.1016/S0022-4359(00)00028-2

Deshpande, S., Basil, M. D., & Basil, D. Z. (2009). Factors influencing healthy eating habits among college students: An application of the health belief model. *Health Marketing Quarterly, 26*(2), 145–164.
https://doi:10.1080/07359680802619834

Gallarza, M. G., &Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: An investigation of university students' travel behaviour. *Tourism Management, 27*(3), 437–452.

https://doi:10.1016/j.tourman.2004.12.002

Goldschmidt, A. B., Aspen, V. P., Sinton, M. M., Tanofsky-Kraff, M., &Wilfley, D. E. (2012).Disordered eating attitudes and behaviors in overweight youth.*Obesity, 16*(2), 257–264. https://doi.org/10.1038/oby.2007.48

Heung, V. C. S., &Gu, T. (2012). Influence of restaurant atmospherics on patron satisfactionandbehavioral intentions. *International Journal of Hospitality Management, 31*, 1167–1177.

https://doi.org/10.1016/j.ijhm.2012.02.004

Hwang, J., &Lorenzen, C. L. (2008).Effective nutrition labeling of restaurant menu andpricing of healthy menu.*Journal of Foodservice, 19*(5), 270–276.

https://doi.org/10.1111/j.1748-0159.2008.00108.x

Jawed, M., Inam, S., Shah, N., &Shafique, K. (2020). Association of obesity measures and multimorbidity in Pakistan: Findings from the impact study. *Public Health, 180*, 51-56.

https://doi.org/10.1016/j.puhe.2019.10.017

Lee, S. Y., Petrick, J. F., & Crompton, J. (2007).The roles of quality and intermediaryconstructs in determining festival attendees' behavioral intention.*Journal of Travel Research, 45*(4), 402–412.

https://doi:10.1177/0047287507299566

Liu, Y., & Jang, S. S. (2009). Perceptions of Chinese restaurants in the U.S.: What affects customer satisfaction and behavioral intentions? *International Journal of Hospitality Management, 28*, 338–348.

https://doi.org/10.1016/j.ijhm.2008.10.008

Mahon, D., Cowan, C., & McCarthy, M. (2006). The role of attitudes, subjective norm,perceived control and habit in the consumption of ready meals and takeaways in GreatBritain. *Food Quality and Preference, 17*(6), 474–481.

https://doi:10.1016/j.foodqual.2005.06.001

Mehrabian, A., & Russell, J. (1974).An approach to environmental psychology.MIT Press.

Ryu, K., & Han, H. (2010). Influence of the quality of food, service, and physical environment oncustomer satisfaction and behavioral intention in quick-casual restaurants: Moderating role ofperceived price. *Journal of Hospitality & Tourism Research, 34*(3), 310–329.

https://doi.org/10.1177/1096348009350624

O'Dea, J. A., & Abraham, S. (2001). Knowledge, beliefs, attitudes, and behaviors related toweight control, eating disorders, and body image in Australian trainee home economicsand physical education teachers. *Journal of Nutrition Education, 33*(6), 332–340.

https://doi:10.1016/S1499-4046(06)60355-2

Story, M., Kaphingst, K. M., Robinson-O'Brien, R., &Glanz, K. (2008).Creating healthy foodand eating environments: Policy and environmental approaches.*Annual Review of Public Health, 29*(1), 253–272.

http://doi:10.1146/annurev.publhealth.29.020907.090926

Webb, T. L., &Sheeran, P. (2006).Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence.*Psychological Bulletin, 132*(2), 249–268.

https://doi:10.1037/0033-2909.132.2.249

Bryman, A. (2016). *Social research methods*: Oxford university press.

Bufquin, D., DiPietro, R., & Partlow, C. (2016). The influence of the DinEX service quality dimensions on casual-dining restaurant customers' satisfaction and behavioral intentions. *Journal of Foodservice Business Research, 20*(5), 542-556. doi: 10.1080/15378020.2016.1222744

Bufquin, D., DiPietro, R., & Partlow, C. (2017). The influence of the DinEX service quality dimensions on casual-dining restaurant customers' satisfaction and behavioral intentions. *Journal of Foodservice Business Research, 20*(5), 542-556.

Antun, J. M., Frash Jr, R. E., Costen, W., & Runyan, R. C. (2010). Accurately assessing expectations most important to restaurant patrons: The creation of the DinEX Scale. *Journal of Foodservice Business Research, 13*(4), 360-379.

Dodd, T. H., Laverie, D. A., Wilcox, J. F., & Duhan, D. F. (2005). Differential effects of experience, subjective knowledge, and objective knowledge on sources of information used in consumer wine purchasing. *Journal of Hospitality & Tourism Research, 29*(1), 3-19.

Shepherd, R., & Towler, G. (1992). Nutrition knowledge, attitudes and fat intake: application of the theory of reasoned action. *Journal of Human Nutrition and Dietetics, 5*(6), 387-397.

Tam, J. L. (2004). Customer satisfaction, service quality and perceived value: an integrative model. *Journal of marketing management, 20*(7-8), 897-917.

Oliver, R. L., & Swan, J. E. (1989). Consumer perceptions of interpersonal equity and satisfaction in transactions: a field survey approach. *Journal of Marketing, 53*(2), 21-35.

Maxham III, J. G., & Netemeyer, R. G. (2002). A longitudinal study of complaining customers' evaluations of multiple service failures and recovery efforts. *Journal of Marketing, 66*(4), 57-71.

Namkung, Y., & Jang, S. (2007). Does food quality really matter in restaurants? Its impact on customer satisfaction and behavioral intentions. *Journal of Hospitality & Tourism Research, 31*(3), 387-409.

Hair, J., Hollingsworth, C. L., Randolph, A. B., & A.Y.L. Chong. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems* 117(3), 442-458.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2016), A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2nd edition, Sage, *Thousand Oaks*, CA.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. J*ournal of the academy of marketing science*, 43(1), 115-135.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

Namin, A. (2017). Revisiting customers' perception of service quality in fast food restaurants. *Journal of Retailing and Consumer Services, 34*, 70-81.

Lee, S. M., Jin, N., & Kim, H.-S. (2018). The Effect of Healthy Food Knowledge on Perceived Healthy Foods' Value, Degree of Satisfaction, and Behavioral Intention: The Moderating Effect of Gender. *Journal of Quality Assurance in Hospitality & Tourism, 19*(2), 151-171. doi: 10.1080/1528008x.2016.1230036

Ryu, K., & Han, H. (2010). Influence of the quality of food, service, and physical environment on customer satisfaction and behavioral intention in quick-casual restaurants: Moderating role of perceived price. *Journal of Hospitality & Tourism Research, 34*(3), 310-329.

Kim, Y.-S., Hertzman, J., & Hwang, J.-J. (2010). College students and quick-service restaurants: How students perceive restaurant food and services. *Journal of Foodservice Business Research, 13*(4), 346-359.

Lee, J.-S., Kim, S., & Pan, S. (2014). The role of relationship marketing investments in customer reciprocity. *International Journal of Contemporary Hospitality Management, 26*(8), 1200-1224.