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Crafting the Customer' Positive Affect Experience and Loyalty towards the Omni-channel Banking Sector in Pakistan: A Two-staged Classical-SEM and Artificial Neural Network (ANN) Approach

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ABSTRACT

The primary purpose of this study was to examine the six aspects (transaction information, information access, promotion, product and price, order fulfilment, and customer service) of Omnichannel marketing strategies on the customer's positive affect experience and additionally study the impact of the positive affect experience on the customer loyalty. To achieve this purpose, we applied the online survey-questionnaire data collection technique while using the non-probabilistic convenience sampling technique to collect 453 data from the customers of those banks in Pakistan that implemented the Omnichannel strategies in their business operations. The Covariance-Based Structural Equations Model (CBSEM) results show that all the Omnichannel strategies significantly and positively impact customer positive affect experience except the integrated promotion while customer positive affect experience also positively impact customer loyalty. The results of this study's Artificial Neural Network (ANN) show that integrated customer service and product and price were the most important predictors of the positive customer experience in the Omnichannel banking sector in Pakistan. These outcomes of this study also provide various theoretical and managerial implications in the existing literature on the Omnichannel.

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1. Introduction

The omnichannel banking sector in Pakistan has witnessed significant developments in recent years, providing customers with seamless access to financial services across various channels. However, despite the increased convenience and accessibility, a prevailing challenge is the apparent low level of customer positive affect experience and customer loyalty. This issue poses a critical concern for the sustainability and growth of banks operating in the omnichannel landscape(Kanwal, Arshad, Shahid, & Gul, 2022). Numerous indicators point to low customer loyalty and customer'positive experience in the omnichannel banking sector(Mainardes, de Moura Rosa, & Nossa, 2020). Customer switching rates have increased, with a noticeable trend of users switching between different banks or abandoning their accounts altogether(Hamouda, 2019). Surveys and feedback mechanisms reveal dissatisfaction and a lack of commitment among customers, indicating a need to examine the underlying issues contributing to this phenomenon comprehensively. While relying on these previous debates, this study mainly concentrates on the following three questions. First, how can each aspect of the Omnichannel marketing strategies enhance the customer's positive affect experience in Pakistan's omnichannel banking sector? Secondly, how does the customer positive affect experience influence customer loyalty in the omnichannel banking sector of Pakistan? Third, what is the most influential factor of omnichannel marketing strategies on the

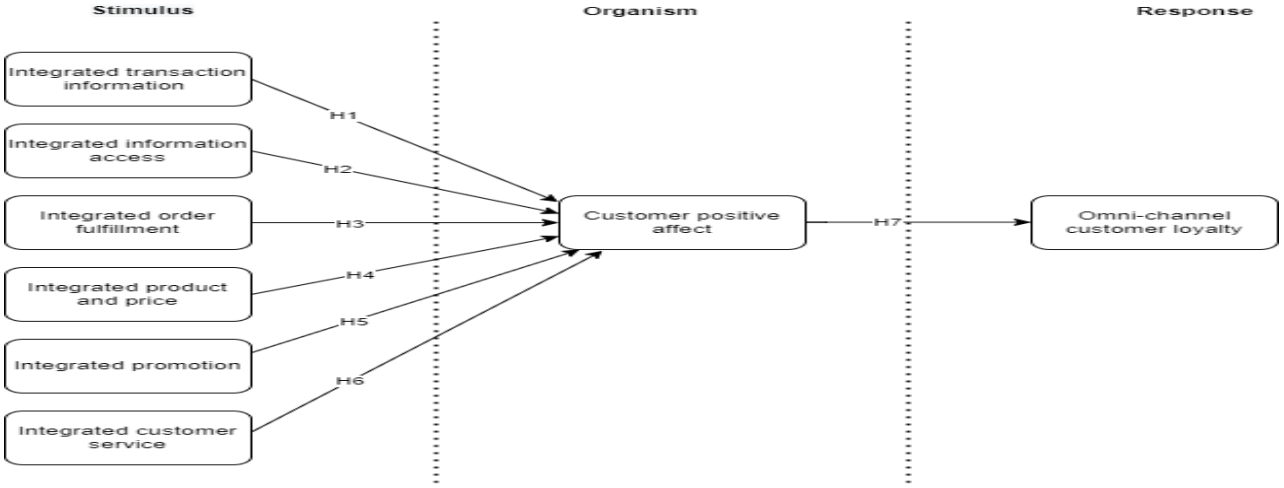
customer's positive affect experience? To answer these questions, this study used the six aspects (transaction information, information access, promotion, product and price, order fulfillment, and customer service) of the Omnichannel marketing strategies and examined the impact of each Omnichannel marketing strategy on the customer positive affect experience and also examined the impact of the customer 'positive affect experience on customer loyalty by relying on the SOR theoretical underpinning in the banking sector of Pakistan. Because there is a dearth of studies have been conducted to examine the role of the customer positive affect experience and loyalty in the Omnichannel banking context. While, previous studies established M. Gao and Huang (2021); Mainardes et al. (2020) that the customer's positive experience and loyalty were essential factors in sustaining the growth of any business and taking a competitive position against their rivals in the harsh competitive business environment. Hence, this study addresses these gaps and provides valuable fresh knowledge in the Omnichannel marketing literature.

2. Literature Review

2.1. Mehrabian SOR Model

Customers' behavior in online and offline service environments can be examined with the SOR framework, which has become popular among researchers. The SOR framework comprises three segments: those firms' external various environmental touchpoints represent the external Stimuli (S); these external touchpoints of firms trigger their customers' internal motivation called Organism(O), and this then drives the customer' Response(R) (Cattapan & Pongsakornrungsilp, 2022; Mehrabian & Russell, 1974). This study considers channel integration marketing strategies, e.g. (Integrated transaction information, Integrated information access, Integrated promotion, Integrated product and price, Integrated order fulfillment, and Integrated customer service) as the stimulus in omnichannel banking environments. Thus, this study recognizes the customer positive affect experience as the organism, capturing customers' assessments of their service-utilizing experiences when using a bank's omnichannel services. Moreover, customers' customer loyalty or usage intention represents the response(Hamouda, 2019; Zhang, Ren, Wang, & He, 2018). Because of these arguments, the SOR model is appropriate for examining the effects of omnichannel marketing strategies on the customer's positive affect experience, which then forms customers' omnichannel loyalty (as shown in Figure 1).

Figure 1: Research Model



2.2. Hypotheses Development

2.2.1. Effects of Integrated Transaction Information on Customer `Positive Affect Experience

The integrated transaction information explains the pile-up and combination of the customer's transaction information when utilizing the firm's services across all the firm's channels (W. Gao, Fan, Li, & Wang, 2021; Zhang et al., 2018). In this effort from the company, the customer feels that the company treats him as the same customer across its whole omnichannel system (Cheah, Lim, Ting, Liu, & Quach, 2020). In this way, the customer, especially the banking customer, easily maintains all transaction history records and conveniently makes future transactions with the bank(Hamouda, 2019). From the company side, these companies can also conveniently offer different services to their customers and

segregate them easily (S. F. Ashraf et al., 2017) according to their past transaction history (İzmirli, Ekren, Kumar, & Pongsakornrungsilp, 2021). Resultantly, the customer feels more and enjoys his experience with the company. In any controversy between the company and the customer, this previously integrated transaction information can efficiently resolve this issue amicably and enhance customer experience (Mainardes et al., 2020). From the crux of following discussion, we formulate this hypothesis

H1: Integrated transaction information positively impacts customer 'positive affect experience.

2.2.2. Effects of Integrated Information Access on Customer 'Positive Affect Experience

Integrated information access can be explained as when a customer seeks and easily access any information across the company's various channels (W. Gao et al., 2021). The customer can seek any information and its status through a firm's online and offline channels simultaneously(Cheah et al., 2020). The customer can resolve any query and information online and offline channels. In the omnichannel system, the customer can switch between these various channels networks of the company efficiently and seek the same information and each channel. Therefore, the customer's positive experience towards these omnichannel firms is also improved(W. Gao et al., 2021; Mainardes et al., 2020). Integrated information is considered an interpersonal relationship touch point of a firm as customers further seek and resolve issues with the interaction of the company personnel thus, it will augment the customer positive experience additionally(Ab Hamid, Ahmad, Tahir Shas, & Arshad, 2010; Cattapan & Pongsakornrungsilp, 2022). From the crux of following discussion, we formulate this hypothesis.

H2: Integrated information access positively impacts customer 'positive affect experience.

2.2.3. Effects of Integrated Order Fulfillment on Customer 'Positive Affect Experience

Integrate order fulfillment shows the company's ability to assure that the customer can complete the transaction procedure, i.e., placing an order, paying the payment, and other any transaction payment through the omnichannel system of the company(Wollenburg, Holzapfel, Hübner, & Kuhn, 2018). For example, when any customer purchases any products or services, the customer can pay this price through the POS, ATM, or any other(offline/online) way, and this transaction can be completed in this way. Hence, it creates a cheerful customer and affects the experience. Furthermore, customer satisfaction and trust levels increase when this transaction is completed this way(Cattapan & Pongsakornrungsilp, 2022). This term integrated order fulfillment is an interaction point that will also be highly interpersonal related that will better communicate with the company employees or service care center. When these employees sort out the problem, this will also increase the customer's experience(W. Gao et al., 2021; Mainardes et al., 2020). From the crux of following discussion, we formulate this hypothesis.

H3: Integrated order fulfillment positively impacts customer 'positive affect experience.

2.2.4. Effects of Integrated Product and Price on Customer 'Positive Affect Experience

The integrated product and price can be explained as when the company provides customers with the same product and price-related information across all its channels(Fulgoni, 2014). Thus, the customer can seek information regarding all products, categories of all products, and what kind of services these companies provide through their omnichannel network system(Cheah et al., 2020; Zhang et al., 2018). In this manner, the companies provide consistent and valuable information to their clients to ensure clarity regarding the companies and their products and services (Hamouda, 2019). In this way, the customer has more touch points of the companies to choose among any of these touch points and seek the companies' services whenever needed; thus, this also increases the customer's positive affect experience (W. Gao et al., 2021). For example, as soon as a customer books a car through the bank, he/she has the exact information and prices (Tshiaba et al., 2019), and the company makes sure this car will be delivered to this customer at the specific time mentioned (Ajaz et al., n.d.). As a result, the customer experience for this bank is triggered. As a result,

the customer experience for this bank is triggered. From the crux of the following discussion, we formulate this hypothesis.

H4: Integrated product & price positively impact customers' positive affect experience.

2.2.5. Effects of Integrated Promotion on Customer 'Positive Affect Experience

Integrated promotion can explain when the company utilizes one channel to provide publicity and advertisement to their customer (Li et al., 2023), which will be displayed on all the other channels (Oh & Teo, 2010). In banking or the retailing business sector, through these integrated efforts, the customers of these firms can quickly obtain the same product or service-related promotion across all the off-line online channels simultaneously (Cattapan & Pongsakornrungsilp, 2022; Cheah et al., 2020). Hence, customers also seek promotional information not only from the company's physical location but also from its online channels (Shahzad et al., 2021). Also, companies conveniently project the same brand or new product-related promotional information to their customers (Mainardes et al., 2020). All these integrated promotional strategies designed by these firms can effectively convey important promotions regarding company-related products or service-related information to their customers(W. Gao et al., 2021). When all the company-related promotional information is well integrated, then the customers of these firms seek better and more complete information regarding the services or products of the company (Li et al., 2020). Thus, these customers feel very enjoyable during their purchase or utilizing the service process(W. Gao et al., 2021). One benefit of integrated promotional information is reducing the advertising cost and effectively avoiding inconvenience for the customers(Cattapan & Pongsakornrungsilp, 2022). Another benefit of integrated promotional information is that consistent information increases the customer's positive experience toward the omnichannel firms (W. Gao et al., 2021). From the crux of following discussion, we formulate this hypothesis.

H5: Integrated promotion positively impacts customer 'positive affect experience.

2.2.6. Effects of Integrated Customer Service on Customer 'Positive Affect Experience

Integrated customer service is the company's ability to provide congruous service to its customers through all channels adopted by this company(Wollenburg et al., 2018). The banking sector companies can now offer their clients the chance to purchase a specific insurance policy or loan. If this is not very suitable and not according to the customer demand, then this customer will be returned to the bank in the lowest loss way (S. Ashraf et al., 2019). For these customers, this will also trigger a positive customer experience(W. Gao et al., 2021; Mainardes et al., 2020). Consequently, the customer can return it on any online channel or physically at any branch(Mainardes et al., 2020). This convenience of the return policy also is part of the integrated customer service and produces a positive experience(W. Gao et al., 2021). From the crux of following discussion, we formulate this hypothesis.

H6: Integrated customer service positively impacts customer 'positive affect experience.

2.2.7. Effect of Customer Positive Affect Experience on Customer Loyalty

Concerning consumption, an affect experience is an emotional response by the consumer regarding an interaction or individual episode with a company(Loureiro & Sarmento, 2018). Therefore, the positive affect can be explained as the magnitude of the customer experience, in which an individual emotionally takes an impression in terms of joy, positive feelings, and alertness (W. Gao et al., 2021).Whereas, Bloemer and Odekerken-Schröder (2007) explain loyalty to the bank as the purpose (i.e., non-random and assessing) choice to commit to one bank out of various sets of banks over a period of time. Customer loyalty is recognized as a primary factor for the profitability of a business. Banks can never run their business operations smoothly for an extended period, deprived of loyal customers(Hamouda, 2019). The previous studies(Bloemer & Odekerken-Schröder, 2007; Mainardes et al., 2020) indicated that the customer positive affect experience increases customer loyalty. Further the studies of Loureiro and Sarmento (2018) prove that the customer's positive emotion leads to brand loyalty. Hence, the findings of these previous studies have shown that the customer experience forms customer loyalty. Moreover, in hyper rivalry among competitors, the positive customer experience brings the more sale, retention of the more customer, and loyalty, which entails a competitive advantage over their competitors(Cattapan & Pongsakornrungsilp, 2022;

Cheah et al., 2020; Mainardes et al., 2020). Customers' positive experience has a more durable impact on loyalty(Bloemer & Odekerken-Schröder, 2007). Loyalty can begin with a positive effect. The following debate noted that the positive affect experience positively can influence customer loyalty in the omnichannel banking sector. Hence, we formulate the following hypothesis:

H7: Customer's positive affect experience positively influences customers' loyalty

3. Methodology

3.1. Sample and Sampling Techniques

To verify the formulated hypotheses of this research, a cross-sectional, descriptive, and quantitative research was conducted as recommended by (Saunders, Lewis, & Thornhill, 2015). As these hypotheses were proposed from the point of view of the population of the banking sector of Pakistan i.e. The customers of these banks utilized the different on/offline channels simultaneously. To collect the required information from these customers an online primary data survey technique was used as suggested (Saunders et al., 2015). A non-probabilistic convenience sampling technique was suitable technique as suggested by Sekaran and Bougie (2016) to collect the response of these customers regarding their opinion about these banks that used the multichannel technique to provide the services to their customers. The adequacy of the sampling size was determined with the help of the Daniel Soper 'online sampling calculator. In this sampling calculator the effect size .15, the statistical power of estimator .80% and the significance level.05 were used as suggested by Westland (2010) the result of these calculations was shown that for the SEM statistical analysis, the minimum sample size should be 138. However, to assure the suitability of the sampling size, we were posting 530 online survey questionnaires on the Facebook and LinkedIn social platforms. This online survey instrument consists of the following three parts: in the first part the introduction and the definition of the omnichannel has been included for the understanding to the respondents who are the researchers and what is the purpose of the research and which company called the omnichannel companies had been mentioned in this first part. In the second and third part of this survey closed-ended questionnaires were included. In the second part the questions regarding the demographic profile of the respondents were included in the terms of gender, monthly income level, education level and age etc. included. In this section to determine the eligibility that the respondent is the target respondent of this study the following screen out questions also be included after the demographic questions as adopted by different researcher collecting the data from respondents in similar type of studies (Hamouda, 2019; Mainardes et al., 2020):

(Q) Do you have a bank account in any Pakistani bank that utilized different online (ATM, Mobile apps, internet website, or social webpage) and offline channels simultaneously.?
(Q) Do you use these online and offline channels or not?

If the "no "answer to these screening out questions, respondents' questionnaires are not included in the further analysis; yes, the respondent questionnaire was included for further analysis. In the last part of this survey, the questionnaires regarding the concepts of this study were included. Out of the 530 surveys sent out, 470 were returned. The final number of completed questionnaires (453), after removing the incomplete and filtered-out replies from respondents, was enough to execute several statistical analyses. As a result, 85% of respondents completed the questionnaire.

3.2. Measurements

All of the measurement items in this study will be adopted from prior studies and modified to suit this research context. The seven factors of channel integration and its items will be adapted from(Oh & Teo, 2010; Zhang et al., 2018) and(M. Gao & Huang, 2021; Huré, Picot-Coupey, & Ackermann, 2017; Lee & Leonas, 2018). Omni-channel customer Positive affect experience will be measured using five items adapted by the research work (Reydet & Carsana, 2017; Shi, Wang, Chen, & Zhang, 2020). The three items developed by Gefen (2002) will be used to measure customer loyalty. All items will be scored on a 7-point Likert-type scale ranging from "1= extremely disagree to 7= extremely agree".

3.3. Estimation Tools

The descriptive statistics, Principal component analysis, Cronbach α reliability tests, and Artificial Neural Network (ANN)were applied with IBM SPSS version 23. Whereas the confirmatory factor analysis and the structural equation modeling were performed using AMOS version 23.

4. Results and Discussions

4.1. The Demographic Characteristics of the Respondents

Table 1 shows the demographic characteristics of the respondents of this study. The table1 shows that most of the respondents among the gender were males (51.4%), whereas the slightly lower level the females (48.6%) as compared to the males. Regarding the education level, most respondents (36.4%) have a graduate degree. In the characteristics of age, most respondents were between the range of 30 to 40 years (44.4%) of the age and monthly income of these respondents, and most respondents had above 50000 monthly incomes in Pakistani rupees. The sample characteristics of this study are similar to the actual population of Pakistani banking customers.

Table 1: The Demographic Characteristics of Respondents of the Study

Variable	Values	Frequency (n=453)	(%)
Gender	Female	220	48.6
	Male	233	51.4
Education	Matric or inter	158	34.9
	Graduate	165	36.4
	Master or above	130	28.7
Age	18-30	114	25.2
	>30<=40	201	44.4
	above 40	138	30.5
Monthly income level in PR.	<=25000	142	31.3
	>25000<=50000	86	19.0
	Above 50000	225	49.7

4.2. Common Method Bias

As the data was collected from the respondents over a single period, there is the possibility of raising the issue of common method bias (CMB) in such data(Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To avoid CMB in this data, we conducted two analyses: First, the Variance Inflation Factor (VIF) was applied to test multicollinearity issues to all study constructs recommended by (Hair et al., 2021; Kock, 2015; Podsakoff et al., 2003). The Variance Inflation Factor (VIF) values of these constructs were between the range (1.063 to 1.329) less than the recommended value of 3 as suggested byKock and Lynn (2012) as depicted in Table 3. Further, a Harman single factor variance method also applied from the table3 shows that the value of all variances of each factor before the rotation method was less than 40%(Fuller, Simmering, Atinc, Atinc, & Babin, 2016), indicating that there were no issues of the CMB in this data . Therefore, we could carry on with further analysis of this data.

4.3. Principal Component and Reliability Analysis

The principal component analysis (PCA) with the varimax rotation method was conducted on all scale items of this study following the recommendations(Hair & Babin, 2018). The PCA is a critical analysis that should be conducted before the analysis of the structural equation modeling because the PCA provides the structure of the factors (Hair & Babin, 2018). Hence, the PCA was conducted. The table2 shows that the value of the KMO is .87, exceeding the recommended value of .7(Kaiser, 1970) , indicating that the sample size of this study is sufficient to conduct the PCA. Further, the significant value of the chi-square is .000, given evidence that there is a significant correlation between the different items of the data as one of the other purposes of the PCA is to reduce the items of the scale with high correlation among them. Therefore, the high correlation of these items forms the factors. After that, the primary PCA analysis was conducted. All the factor loadings values of each item also exceeded the recommended threshold value of .5) as shown in Table 3(Hair & Babin, 2018), , indicating that the PCA successfully drove the structure of the factors. After the conduct of PCA, we established the Cronbach α reliability; all values exceeded the proposed value of (>.7)(Churchill Jr, 1979; Nunnally, 1994; Peter, 1979), indicating that the reliability of the scale also was not a severe issue.

Table 2: KMO and Bartlett's Test

Test		Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.87
Bartlett's Test of Sphericity	Approx. Chi-Square	10069.867
	df	351
	Sig.	.000

Table 3: Principal Component Factor Loadings and Cronbach Reliability

Constructs	Items	Loadings
Customer Loyalty	Loyl-1	.837
Cronbach a= .92	Loyl-2	.865
Without rotation % variance=7.15	Loyl-3	.826
Customer positive affect	Crpa-1	.823
Cronbach a= .93	Crpa-2	.806
Without rotation % variance=31.4	Crpa-3	.819
	Crpa-4	.794
	Crpa-5	.805
Integrated customer service	Icrs-1	.842
Cronbach a= .87	Icrs-2	.834
Without rotation % variance=5.28	Icrs-3	.821
Integrated order fulfillment	Iof-1	.814
Cronbach a= .85	Iof-2	.854
Without rotation % variance=4.44	Iof-3	.782
Integrated transaction information	Iti-1	.877
Cronbach a= .94	Iti-2	.928
Without rotation % variance=8.37	Iti-3	.912
Integrated information access	Iira-1	.891
Cronbach a= .88	Iira-2	.877
Without rotation % variance=6.32	Iira-3	.806
Integrated promotion	Ipr-1	.864
Cronbach a= .94	Ipr-2	.932
Without rotation % variance=12.88	Ipr-3	.937
	Ipr-4	.928
Integrated product and price	Iprp-1	.905
Cronbach a= .91	Iprp-2	.922
Without rotation % variance=7.41	Iprp-3	.893

4.4. Confirmatory Factor Analysis

After successfully determining the pattern of the factors from the data, we conducted the confirmatory factor analysis in the second stage on this data as well. The primary purpose of the confirmatory factor analysis was to establish the scale's composite reliability, convergent and discriminant validity of the scale (Kline, 2023). Before conducting the main analysis of the Confirmatory Factor Analysis, the values of the different fit indexes (X2/DF=2.37, CFI=scale's .96, TLI=.95, GFI =.90, RMSEA,=.05) from Table 4 shows that the global fit of the model (Hu & Bentler, 1999; Prajogo & Hong, 2008) i.e., there are no issues between the model and the data in hand.

Table 4: Goodness of Fit Index for Confirmatory Factor Analysis

X^2(CMIN)	X^2/DF	CFI	TLI	GFI	RMSEA
692.11	2.37	.96	.95	.90	.05

Then we proceeded the further analysis on the Confirmatory Factor Analysis. All the items were significantly loading(p<.0010) on their respective constructs, as shown in Table 5, and all the standardized values of these items are above the recommended value of .7 (Fornell & Larcker, 1981) values as well; hence there were not any issues in this data regarding the confirmatory factor analysis. The composite reliability (CR)values of each variable above the global value (>.7)(Fornell & Larcker, 1981) establish the composite reliability as well. The average variance extract (AVE) value of each variable from Table 5 also is above (>.5)(Fornell & Larcker, 1981), indicating that there is no issue with the convergent validity as well.

Table 5: Confirmatory factor loadings, Composite reliability, and AVE

Constructs	Items	Standardized-Loadings
Customer Loyalty	Loyl-1	.89***
Composite reliability a= .90	Loyl-2	.95***
Average Variance extract (AVE)=.79	Loyl-3	.82***
Customer positive affect	Crpa-1	.80***
Composite reliability a= .93	Crpa-2	.81***
Average Variance extract (AVE)=.72	Crpa-3	.87***
	Crpa-4	.90***
	Crpa-5	.83***
Integrated customer service	Icrs-1	.82***
Composite reliability a= .87	Icrs-2	.85***
Average Variance extract (AVE)=.69	Icrs-3	.86***
Integrated order fulfillment	Iof-1	.83***
Composite reliability a= .85	Iof-2	.87***
Average Variance extract (AVE)=.67	Iof-3	.75***
Integrated transaction information	Iti-1	.88***
Composite reliability a= .91	Iti-2	.94***
Average Variance extract (AVE)=.84	Iti-3	.93***
Integrated information access	Iira-1	.93***
Composite reliability a= .88	Iira-2	.87***
Average Variance extract (AVE)=.72	Iira-3	.73***
Integrated promotion	Ipr-1	.80***
Composite reliability a= .94	Ipr-2	.92***
Average Variance extract (AVE)=.79	Ipr-3	.94***
	Ipr-4	.91***
Integrated product and price	Iprp-1	.89***
Composite reliability a= .95	Iprp-2	.93***
Average Variance extract (AVE)=.82	Iprp-3	.92***
Note: *** denotes the significance level=.001		

To establish the discriminant validity, instead of relying on the former HTMT or Fornell & Larcker criteria because of their limitations(Roemer, Schuberth, & Henseler, 2021), we , we conducted the Heterotrait-Monotrait type-2 ratio of correlations (HTMT2) criteria for assessing the discriminant validity, the maximum value of HTMT2 from Table 6 was .52, which is significantly less than the most restrictive value of .85 (Roemer et al., 2021); hence the discriminant validity also be established. After establishing the scale's all-psychometric properties, we conducted the structural equation modeling analysis to test the hypotheses of this study.

Table 6: HTMT2

Constructs	HTMT2
Positive affect <--> customer Loyalty	0.63
Positive affect<-->integrated customer service	0.47
Positive affect-<-->integrated order fulfillment	0.52
Positive affect<-->integrated transaction information	0.35
Positive affect <-->integrated promotion	.19
Positive affect<-->integrated information access	0.35
Positive<-->Integrated product & price	0.37
Loyalty<-->integrated customer service	0.37
Loyalty<-->integrated order fulfillment	0.38
Loyalty<-->integrated transaction information	0.35
Loyalty<-->integrated information access	0.32
Loyalty<-->integrated promotion	0.17
Loyalty<-->integrated product & price	0.30
Integrated customer service<-->integrated transaction information	0.34
Integrated customer service<-->integrated order fulfillment	0.45
Integrated customer service <-->integrated information access	0.21
Integrated customer service <-->integrated product & service	0.42
Integrated customer service <-->integrated promotion	.39
Integrated order fulfillment<-->integrated information access	0.31
Integrated order fulfillment <-->integrated transaction information	0.28
Integrated order fulfillment <-->integrated promotion	0.53
Integrated order fulfillment <-->integrated product & price	0.33

Integrated information access<-->integrated promotion	0.21
Integrated information access<-->integrated transaction information	0.23
Integrated information access<--> integrated product & price	0.23
Integrated promotion<-->integrated product & price	0.45
Integrated promotion<-->Integrated transaction information	0.26
integrated transaction information<--> integrated product & price	0.29

Source: author' own calculations for HTMT2

4.5. Results of CBSEM Modeling

To test the hypotheses of this study, we conducted the Covariance Based Structural Equation Modeling(CBSEM). The indexes of the goodness of fit for the structural equation modeling are as depicted in Table 7: X2/DF=2.2, CFI=.96, TLI=.93, GFI=.90, RMSEA=.045, these values were according to guideline values of these fit indexes as suggested by(Hu & Bentler, 1999), indicating that the underlying data and model are in the same line.

Table 7: Goodness of fit index for Structural Model

X^2(CMIN)	X^2/DF	CFI	TLI	GFI	RMSEA
740.08	2.4	.96	.93	.90	.045

Table 8 shows a significant positive relationship between integrated transaction information and the customer's positive affect experience in omnichannel banking (β=.137, p<0.01); thus, H1 was supported. There is a significant and positive relation between integrated information access and the customer positive affect experience (β=.106, p<=0.05) as well as between integrated order fulfillment and customer positive affect experience (β=0.281, p<0.001). So, H2 and H3 were supported. The integrated promotion has a non-significant impact on customer positive affect experience (β=.064, p>0.05), and H5 was rejected. Hypothesis (H6) that suggests a positive relationship between Integrated customer service and customer positive affect experience in an omnichannel banking context was also significant (β=0.232, p<0.001), so this hypothesis was statistically supported. Whereas hypothesis (H7) that suggests a positive relationship between customer positive affect experience and customer loyalty in an omnichannel banking context was also significant (β=0.52, p<0.001), in this way, this hypothesis was statistically supported.

Table 8: Summary of the Results

Paths	Direction of Hypothesis	Standardized estimation/t values	Conclusions
Integ. Transcat. Inform ---> Positive Affect	+	.137**/ (3.3)	H1 is supported
Integ. Inform.Access --->Positive Affect	+	.106*/ (2.5)	H2 is supported
Integ. Order fulfillment ---> Positive Affect	+	.281***/ (6.62)	H3 is supported
Integ. Product & Price ---> Positive Affect	+	.141***/ (3.34)	H4 is supported
Integ. Promotion --->Positive Affect	+	.064/ (.129)	H5 not supported
Integ. Customer service ---> Positive Affect	+	.232***/ (5.46)	H6 is supported
positive affect ---> Customer loyalty	+	.52***/ (12.95)	H7 is supported

Notes: Note: *p<.05, **p<0.01, ***p<0.001

4.6. Artificial Neural Network Analysis

After the structural equation model and determining the significant predictors of this study, we further applied the ANN (artificial neural network analysis) to these significant predictors of this study as the input of ANN for the robustness of the results. As compared to the other statistical techniques, e.g., structural equation modeling, linear and nonlinear models, the artificial neural network is the only technique that can interpret and solve the most complex problem in a straightforward way, which these statistical tools cannot do(Arif, Aslam, & Hwang, 2020; Pragati Priyadarshinee, Rakesh D. Raut, Manoj Kumar Jha, & Bhaskar B. Gardas, 2017). Another great advantage of artificial neural networks is that for this technique, there are no requirements for the multivariate normality of data, and no specific sample size condition is compulsory for the ANN(Leong, Hew, Lee, & Ooi, 2015).

Table 9: The results of Root Mean Square Error of ANN

Artificial Neural Network Analysis	RMSE (Training) (Positive affect experience)	RMSE (Testing) (Positive affect experience)	RMSE (Training) (Customer Loyalty)	RMSE (Testing) (Customer Loyalty)
ANN#1	0.179515	0.078994	11.52836	0.02569
ANN#2	0.118757	0.027187	12.05218	0.045205
ANN#3	0.091047	0.034405	11.75032	0.029623
ANN#4	0.098655	0.03	11.55517	0.155938
ANN#5	0.055435	0.036179	11.43954	0.028031
ANN#6	0.062608	0.252558	11.97309	0.016183
ANN#7	0.111425	0.128643	11.47345	0.030357
ANN#8	0.08606	0.041616	11.59112	0.045895
ANN#9	0.09314	0.037718	12.18134	0.037366
ANN#10	0.077586	0.006742	11.66396	0.045477
Average	0.099627	0.074144	11.72717	0.046032
Standard Deviation	0.034878	0.073389	0.2756	0.03986

There are several different methods to run the ANN. However, for this study, we applied the feed-forward back-propagation multilayer perceptron (MLP) method with the help of IBM SPSS 23 on significant study predictors(Wan et al., 2021). We then used the two-layers method, i.e., the input and output layers. Moreover, we run the ANN model on two dependent variables, i.e., in the first ANN model, the customer positive affect was used as the output layer. In contrast, the other significant predictors (Integrated transaction information, Integrated information access, Integrated product and price, Integrated order fulfillment, and Integrated customer service) are used as the input layers. In the second ANN model, we used the Customer positive affect experience as the input layer and customer loyalty as the output layer. According to the guidelines suggested by(Chong, 2013; Chong, Liu, Luo, & Keng-Boon, 2015; Pragati Priyadarshinee, Rakesh D Raut, Manoj Kumar Jha, & Bhaskar B Gardas, 2017), before conducting the ANN analysis, we had divided the data in training and testing with (90:10) ratio. We analyzed both of these ANN models ten times, and Table 9 shows the results of the root mean square error of training and testing. We also conducted the sensitivity importance analysis, as the results of the sensitivity importance analysis shown in Table 10 show that the most important predictor is the integrated customer service, and the second most important is the integrated product & price.

Table 10: Sensitivity Importance Analysis

Variables(predictors)	Sensitivity Importance
Integrated customer service	1
Integrated order fulfillment	0.66
Integrated transaction information	0.47
Integrated Information Access	0.42
Integrated Product & Price	0.75

5. Discussion

Based on the SOR framework developed, a model in the context of omnichannel banking strategy in Pakistan has been empirically tested by the two approaches, i.e., CBSEM and ANN. The Table8 shows that the overall (transaction information, information access, product and price, order fulfillment, and customer service) except the integrated promotion omnichannel marketing strategies of these banks in Pakistan positively impact the customer's positive affect experience. The different information-providing elements of these omnichannel marketing strategies, i.e., integrated transactional information, increase the customer positive experience (β=.137) for these banks, consistent with the findings of (W. Gao et al., 2021). A possible explanation is that whenever the customer makes any transaction through uses any means (channel), i.e., the ATM or the POS machine, or completes the payment via the physical branch. In this way This customer can easily trace his transaction information whenever he needs it and in historical records of the payments also maintained by these banks for their clients, which will increase the positive experience of their clients.

The second informational element of the omnichannel marketing strategy is integrated information access, which also positively and significantly impacts (β=.106) the customer's positive affect experience toward the omnichannel banking sector in Pakistan. That is also consistent with the previous studies of the (Cattapan & Pongsakornrungsilp, 2022) and is valid

for the Omnichannel banking sector. The possible explanation for these findings is that when clients need any information regarding the policies or other forms of information they require, and they will access this information through the different online/offline channels quickly and accurately, their positive experience also increases towards the omnichannel banks. Moreover, integrated order fulfillment significantly impacts(β=.281) the customer's positive experience in omnichannel banks; these findings of this study also verify the results of previous studies (Cheah et al., 2020). The possible explanation of these findings is that when the customers of these banks pay or draw from their accounts, whether these clients utilize any online or offline channels of their banks, the exact amount will be drawn or deposited will also increase their positive experience for these banks. The integrated product & price also significantly impact(β=.141) on the customer experience. It is the second most important factor of the omnichannel banking sector in Pakistan to increase the customer's positive affect experience, as the results of ANN show in Table 10. This result is also in line with the findings of (W. Gao et al., 2021), as they established that the most important factors were the products and their prices, or the cost incurred by the clients of the service sector. As the banking sector provides different credit cards, debit cards, and insurance policies, when their customer needs these products, they may order these products via any off/online channels, which positively impacts the customer's positive experience. These may be delivered within the specific policy time of these banks, further increasing the customer's positive affect experience for these omnichannel banks. However, the integrated promotion has a non-significant impact(β=.064) on the customer's positive affect experience in the omnichannel banking sector in Pakistan. That results are inconsistent with the results of different previous studies (W. Gao et al., 2021; Mainardes et al., 2020).

Integrated customer service(β=.232) is the essential element of omnichannel marketing strategy for omnichannel banks, which is in line (Ab Hamid et al., 2010). Moreover, the results of ANN analysis of this study show that integrated customer service is the most crucial element of this study for determining the customer's positive affect experience in the omnichannel banking sector. These findings are also in line the other service sector studies e.g., (Izogo, 2017; Liang, Ma, & Qi, 2013) where they established that customer service was an essential element in creating customer loyalty and experience in the mobile telecom service or public sector service be true for the financial sector as well, especially for the omnichannel banking sector too. The positive affect experience positively impacts(β=.52) customer loyalty in the omnichannel banking sector as well the findings also confirm the results of previous studies (Bloemer & Odekerken-Schröder, 2007; Siqueira, ter Horst, Molina, Losada, & Mateus, 2020).

6. Conclusion, Implications, Limitations and Future Directions

6.1. Theoretical Implications

The outcomes of this study provide the following theoretical implications. First, we used the SOR model to study consumer behavior in the Omnichannel banking sector. As the Omnichannel is a newly developed concept, utilizing the SOR model in the Omnichannel settings further improves its applicability. Moreover, this study used (Integrated transaction information, Integrated information access, Integrated promotion, Integrated product and price, Integrated order fulfillment, and Integrated customer service) as stimuli for the SOR model. This way, we contribute to the SOR model by introducing these new stimuli. Furthermore, the customer's positive affect experience is used as the organism factor (internal motivator of customers), which is also the first time introduced in the SOR model in the Omnichannel banking sector. Customer loyalty as the response of the customer toward the omnichannel banking sector is to be also new one. Hence in this way, we make these important contributions to enhance the SOR model. Secondly, to better understand customer behavior towards the omnichannel banking sector. Our study empirically proved that (Integrated transaction information, Integrated information access, Integrated product and price, Integrated order fulfillment, and Integrated customer service) are essential external factors from the omnichannel banking sectors that impact the customer's internal motivation factor, called positive affect experience. Further, the positive effect experience increases customer loyalty in the omnichannel banking sector. Hence in this way we provide the fresh knowledge to the existing body of the Omnichannel service marketing literature. Third, from the methodological point of view, we used combined analysis of the SEM and ANN in this study to deep understanding the customer behavior towards the Omnichannel banking sector and

found that integrated customer service and integrated product & price are the most crucial elements of the customer' positive affect experience and the positive affect experience also be a significant predictor of the customer loyalty in the omnichannel marketing research. Hence, these findings enrich our understandings and addition new knowledge regarding the positive effect of experience and customer loyalty in the omnichannel research literature.

6.2. Practical Implications

The results of this research also provide numerous managerial implications. The operators of omnichannel banks can improve their omnichannel marketing strategies by following the guidelines of the outcomes of this research. First, the operators of these omnichannel banks should fully integrate all their marketing strategies on online-offline channels. This practice increases the customer's seamless experience. It enhances the customer's positive affect experience or positive emotions towards their banks, and, in this way, customer loyalty towards these banks can also be improved. As these banks face harsh rivalry with each other, in this way, the customers of these banks remain loyal to their banks, and the profitability of their bank should increase. The ANN model further deeply analyzed that these omnichannel bankers should sharpen their integrated customer services and the integrated product & price marketing strategies as these two more effectively increase the customer positive affect experience. Another important implication for the bankers of the omnichannel is that they do not give more importance to the integrated promotion but rather make more focus and investing in integrated customer service and make it assure to provide 24/7 integrated customer services to the clients of their banks in this way they can improve competitive edge against their rival and the customers of these banks not only remain more loyal but also recommend these banks to other potential customers of these banks.

6.3. Limitations and Future Directions:

This study has following limitations. First, as this study had been conducted in a specific business milieu, i.e., the banking sector of a particular country, the study's results may be different in the other culture or business environment. In this sense, the generalization of the results is not guaranteed. So future researchers can test this model in other cultures and other business environments to test the reliability of this model. The second, as this study was cross-sectional, i.e., it only taps the customers' responses in a single period, so this is not assured that with the passage of time customer'opinion regarding the Omnichannel may be change. Hence in the future, the longitudinal study will confirm whether customer opinion changes over time or not. Therefore, a longitudinal study on this model may also be conducted in the future. This study only uses the customer's positive affect experience regarding the Omnichannel marketing strategies to understand better the other aspect of positive affect, like negative affect may be used to understand the customer' attitude regarding these omnichannel strategies. In this study, no mediating role of positive affected experience had been tested so that future researchers may use the positive affect experience as the mediator between the Omnichannel marketing factors and customer loyalty.

Reference

Ab Hamid, N. R., Ahmad, F., Tahir Shas, S., & Arshad, N. H. (2010). Evaluating the adoption level of electronic customer relationship management by telecommunication companies. *WSEAS Transactions on Systems, 9*(2), 115-124.

Arif, I., Aslam, W., & Hwang, Y. (2020). Barriers in adoption of internet banking: A structural equation modeling - Neural network approach. *Technology in Society, 61*, 101231. doi:https://doi.org/10.1016/j.techsoc.2020.101231

Bloemer, J., & Odekerken-Schröder, G. (2007). The psychological antecedents of enduring customer relationships: An empirical study in a bank setting. *Journal of Relationship Marketing, 6*(1), 21-43. doi:https://doi.org/10.1300/J366v06n01_03

Cattapan, T., & Pongsakornrungsilp, S. (2022). Impact of omnichannel integration on Millennials' purchase intention for fashion retailer. *Cogent Business & Management, 9*(1), 2087460. doi:https://doi.org/10.1080/23311975.2022.2087460

Cheah, J.-H., Lim, X.-J., Ting, H., Liu, Y., & Quach, S. (2020). Are privacy concerns still relevant? Revisiting consumer behaviour in omnichannel retailing. *Journal of Retailing and Consumer Services*, 102242.

Chong, A. Y.-L. (2013). Predicting m-commerce adoption determinants: A neural network approach. *Expert systems with applications, 40*(2), 523-530. doi:https://doi.org/10.1016/j.eswa.2012.07.068

Chong, A. Y.-L., Liu, M. J., Luo, J., & Keng-Boon, O. (2015). Predicting RFID adoption in healthcare supply chain from the perspectives of users. *International journal of production economics, 159*, 66-75. doi:https://doi.org/10.1016/j.ijpe.2014.09.034
Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research, 16*(1), 64-73. doi:https://doi.org/10.1177/002224377901600110
Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research, 18*(1), 39-50. doi:https://doi.org/10.1177/002224378101800104
Fulgoni, G. M. (2014). "Omni-channel" retail insights and the consumer's path-to-purchase: how digital has transformed the way people make purchasing decisions. *Journal of Advertising Research, 54*(4), 377-380. doi:https://doi.org/10.2501/JAR-54-4-377-380
Fuller, C. M., Simmering, M. J., Atinc, G., Atinc, Y., & Babin, B. J. (2016). Common methods variance detection in business research. *Journal of business research, 69*(8), 3192-3198. doi:https://doi.org/10.1016/j.jbusres.2015.12.008
Gao, M., & Huang, L. (2021). Quality of channel integration and customer loyalty in omnichannel retailing: The mediating role of customer engagement and relationship program receptiveness. *Journal of Retailing and Consumer Services, 63*, 102688. doi:https://doi.org/10.1016/j.jretconser.2021.102688
Gao, W., Fan, H., Li, W., & Wang, H. (2021). Crafting the customer experience in omnichannel contexts: The role of channel integration. *Journal of business research, 126*, 12-22. doi:https://doi.org/10.1016/j.jbusres.2020.12.056
Gefen, D. (2002). Customer loyalty in e-commerce. *Journal of the association for information systems, 3*(1), 2. doi:https://doi.org/10.17705/1jais.00022
Hair, J. F., & Babin, B. J. (2018). *Multivariate Data Analysis*: Cengage.
Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*: Springer International Publishing.
Hamouda, M. (2019). Omni-channel banking integration quality and perceived value as drivers of consumers' satisfaction and loyalty. *Journal of Enterprise Information Management*.
Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal, 6*(1), 1-55. doi:https://doi.org/10.1080/10705519909540118
Huré, E., Picot-Coupey, K., & Ackermann, C.-L. (2017). Understanding omni-channel shopping value: A mixed-method study. *Journal of Retailing and Consumer Services, 39*, 314-330. doi:https://doi.org/10.1016/j.jretconser.2017.08.011
İzmirli, D., Ekren, B. Y., Kumar, V., & Pongsakornrungsilp, S. (2021). Omni-chanel network design towards circular economy under inventory share policies. *Sustainability, 13*(5), 2875.
Izogo, E. E. (2017). Customer loyalty in telecom service sector: the role of service quality and customer commitment. *The TQM Journal, 29*(1), 19-36. doi:https://doi.org/10.1108/TQM-10-2014-0089
Kaiser, H. F. (1970). A second generation little jiffy. doi:https://doi.org/10.1007/BF02291817
Kanwal, M., Arshad, M. R., Shahid, M., & Gul, R. (2022). The Framework of Loyalty and Customer Satisfaction with Perceived value and Omni-channel Integration Quality as Drivers in Banking Sector of Pakistan. *Pakistan Journal of Humanities and Social Sciences, 10*(4), 1545–1560-1545–1560. doi:https://doi.org/10.52131/pjhss.2022.1004.0313
Kline, R. B. (2023). *Principles and Practice of Structural Equation Modeling*: Guilford Publications.
Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec), 11*(4), 1-10. doi:https://doi.org/10.4018/ijec.2015100101
Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the association for information systems, 13*(7).
Lee, H., & Leonas, K. (2018). Consumer experiences, the key to survive in an omni-channel environment: Use of virtual technology. *Journal of Textile and Apparel, Technology and Management, 10*(3).

Leong, L.-Y., Hew, T.-S., Lee, V.-H., & Ooi, K.-B. (2015). An SEM–artificial-neural-network analysis of the relationships between SERVPERF, customer satisfaction and loyalty among low-cost and full-service airline. *Expert systems with applications, 42*(19), 6620-6634.

Liang, D., Ma, Z., & Qi, L. (2013). Service quality and customer switching behavior in China's mobile phone service sector. *Journal of business research, 66*(8), 1161-1167. doi:https://doi.org/10.1016/j.jbusres.2012.03.012

Loureiro, S. M. C., & Sarmento, E. M. (2018). Enhancing brand equity through emotions and experience: the banking sector. *International Journal of Bank Marketing*.

Mainardes, E. W., de Moura Rosa, C. A., & Nossa, S. N. (2020). Omnichannel strategy and customer loyalty in banking. *International Journal of Bank Marketing*.

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

Nunnally, J. C. (1994). *Psychometric theory 3E*: Tata McGraw-hill education.

Oh, L.-B., & Teo, H.-H. (2010). Consumer value co-creation in a hybrid commerce service-delivery system. *International Journal of Electronic Commerce, 14*(3), 35-62. doi:https://doi.org/10.2753/JEC1086-4415140303

Peter, J. P. (1979). Reliability: A review of psychometric basics and recent marketing practices. *Journal of marketing research, 16*(1), 6-17. doi:https://doi.org/10.1177/002224377901600102

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology, 88*(5), 879. doi:https://doi.org/10.1037/0021-9010.88.5.879

Prajogo, D. I., & Hong, S. W. (2008). The effect of TQM on performance in R&D environments: A perspective from South Korean firms. *Technovation, 28*(12), 855-863. doi:https://doi.org/10.1016/j.technovation.2008.06.001

Priyadarshinee, P., Raut, R. D., Jha, M. K., & Gardas, B. B. (2017). Understanding and predicting the determinants of cloud computing adoption: A two staged hybrid SEM-Neural networks approach. *Computers in Human Behavior, 76*, 341-362. doi:https://doi.org/10.1016/j.chb.2017.07.027

Priyadarshinee, P., Raut, R. D., Jha, M. K., & Gardas, B. B. (2017). Understanding and predicting the determinants of cloud computing adoption: A two staged hybrid SEM - Neural networks approach. *Computers in Human Behavior, 76*, 341-362. doi:https://doi.org/10.1016/j.chb.2017.07.027

Reydet, S., & Carsana, L. (2017). The effect of digital design in retail banking on customers' commitment and loyalty: The mediating role of positive affect. *Journal of Retailing and Consumer Services, 37*, 132-138. doi:https://doi.org/10.1016/j.jretconser.2017.04.003

Roemer, E., Schuberth, F., & Henseler, J. (2021). HTMT2–an improved criterion for assessing discriminant validity in structural equation modeling. *Industrial Management & Data Systems*.

Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students*: Pearson Education.

Sekaran, U., & Bougie, R. (2016). *Research Methods For Business: A Skill Building Approach*: Wiley.

Shi, S., Wang, Y., Chen, X., & Zhang, Q. (2020). Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach. *International Journal of Information Management, 50*, 325-336. doi:https://doi.org/10.1016/j.ijinfomgt.2019.09.001

Siqueira, J. R., ter Horst, E., Molina, G., Losada, M., & Mateus, M. A. (2020). A Bayesian examination of the relationship of internal and external touchpoints in the customer experience process across various service environments. *Journal of Retailing and Consumer Services, 53*, 102009. doi:https://doi.org/10.1016/j.jretconser.2019.102009

Wan, S.-M., Cham, L.-N., Tan, G. W.-H., Lo, P.-S., Ooi, K.-B., & Chatterjee, R.-S. (2021). What's Stopping You from Migrating to Mobile Tourism Shopping? *Journal of Computer Information Systems*, 1-16.

Westland, J. C. (2010). Lower bounds on sample size in structural equation modeling. *Electronic commerce research and applications, 9*(6), 476-487. doi:https://doi.org/10.1016/j.elerap.2010.07.003

Wollenburg, J., Holzapfel, A., Hübner, A., & Kuhn, H. (2018). Configuring retail fulfillment processes for omni-channel customer steering. *International Journal of Electronic Commerce, 22*(4), 540-575. doi:https://doi.org/10.1080/10864415.2018.1485085

Zhang, M., Ren, C., Wang, G. A., & He, Z. (2018). The impact of channel integration on consumer responses in omni-channel retailing: The mediating effect of consumer empowerment. *Electronic commerce research and applications, 28*, 181-193. doi:https://doi.org/10.1016/j.elerap.2018.02.002