

Omnichannel Customer Experience and Customer Retention Intention in Modern Retail in Indonesia: The Serial Mediating Roles of Perceived Value and Customer Satisfaction

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ABSTRACT

The transformation of modern retail requires an integrated cross-channel customer experience that not only improves convenience but also strengthens customer relationships. This study examines the effect of omnichannel customer experience on customer retention intention in modern retail in Indonesia through the serial mediation of perceived value and customer satisfaction within the Stimulus-Organism-Response framework. The study employed an explanatory quantitative approach using a four-wave time-lagged survey and covariance-based structural equation modeling with AMOS. The analytical sample consisted of 428 omnichannel customers. The measurement model met the criteria for reliability, convergent validity, discriminant validity, and overall model fit. Omnichannel customer experience positively influenced perceived value, customer satisfaction, and customer retention intention. Perceived value also positively affected customer satisfaction and retention intention, while customer satisfaction emerged as the strongest direct predictor of retention intention. Bootstrap analysis indicated that perceived value and customer satisfaction mediated the relationship both individually and sequentially, with the serial mediation effect being the largest specific indirect effect. These findings suggest that omnichannel experiences are more effective in strengthening retention when they first create perceived value and subsequently enhance customer satisfaction. In conclusion, retailers seeking to strengthen customer retention should prioritize investments that translate cross-channel integration into recognizable value and consistent satisfaction rather than channel proliferation alone, while future research should test the generalizability of this serial pathway across other retail contexts.

Keywords: CB-SEM, Customer Retention Intention, Customer Satisfaction, Omnichannel Customer Experience, Perceived Value

1. INTRODUCTION

Digital transformation has changed competition in modern retail from a model primarily based on location, price, and product assortment toward competition based on customer experience throughout the shopping journey. Customers increasingly interact with physical stores, mobile applications, websites, marketplaces, social media, digital payments, and delivery services as interconnected touchpoints rather than separate channels. Therefore, customer experience is no longer determined by a single interaction but by the retailer's ability to provide continuity across the entire customer journey. Lemon and Verhoef (2016) emphasized that customer experience develops cumulatively through multiple touchpoints before, during, and after purchase, making cross-channel relationship management increasingly important.

This challenge is particularly relevant in Indonesia, where digital commercial activities continue to expand. BPS-Statistics Indonesia (2025) reported that the number of e-commerce businesses increased by 15.30% in 2024 compared with the previous year. Similarly, Bank Indonesia (2026) reported that digital payment transactions reached 5.15 billion transactions in April 2026, with year-on-year growth of 42.86%. These developments do not directly indicate the success of omnichannel strategies, but they illustrate an increasingly complex retail ecosystem in which customers frequently move across digital and physical touchpoints. Consequently, retailers

must move beyond simply providing multiple channels and focus on integrating these channels to create a seamless customer experience.

This transition reflects the movement from multichannel toward omnichannel retailing. Unlike multichannel approaches where channels may operate independently, omnichannel retailing requires coordination that enables customers to move between channels without losing information, repeating processes, or experiencing inconsistent services. Therefore, omnichannel customer experience (OCX) should not be understood merely as the availability of multiple channels. Shi et al. (2020) conceptualized OCX as customers' evaluations of cross-channel characteristics that collectively shape an integrated shopping experience. Rahman et al. (2022) further described OCX as a multidimensional construct involving social communication, value, personalization, customer service, product availability, price consistency, information security, delivery, returns, and loyalty programs. Thus, OCX represents the retailer's ability to transform technological and operational integration into a seamless, relevant, and valuable customer experience.

The importance of OCX emerges because small inconsistencies across channels can influence customers' overall evaluations. Differences in inventory information, promotions, transaction histories, return procedures, or service coordination may increase customer effort and uncertainty. Conversely, effective integration can improve convenience, control, and continuity. Lazaris et al. (2021) demonstrated that omnichannel integration positively influences customer satisfaction and loyalty intentions, indicating that the benefits of omnichannel retailing depend not only on the number of available channels but also on how effectively these channels support customer experiences.

This study focuses on customer retention intention rather than actual customer retention. Actual retention requires longitudinal behavioral indicators, such as repeated transactions or relationship duration, whereas survey-based research more appropriately captures customers' intentions to continue purchasing from a retailer. Customer retention intention reflects customers' willingness to maintain relationships, make future purchases, and avoid switching to competitors. This construct is narrower than customer loyalty because loyalty may also include advocacy, preference, and recommendation behaviors. Previous studies have shown that omnichannel experiences influence relationship continuity. Yin et al. (2022) found that customer retention in omnichannel retailing is associated with brand experience and purchasing behavior, while De and Khoa (2026) demonstrated that customer experience strengthens satisfaction and repurchase intention. However, the psychological mechanisms explaining how omnichannel experience develops into retention intention remain insufficiently understood.

One important mechanism is perceived value. Customers may encounter advanced technologies and multiple channels but still lack intention to maintain relationships when the benefits received do not outweigh the costs, effort, and risks involved. In an omnichannel environment, perceived value is generated not only from economic benefits but also from convenience, information accessibility, fulfillment flexibility, payment security, and reduced effort throughout the shopping journey. Huré et al. (2017) showed that omnichannel shopping value emerges from combined benefits across different touchpoints, while Sharma and Fatima (2024) emphasized the role of perceived value in explaining omnichannel usage. Therefore, OCX is expected to increase perceived value by reducing customer sacrifices while enhancing functional and experiential benefits.

Another important mechanism is customer satisfaction. Satisfaction represents customers' overall evaluation after comparing their expectations with actual experiences. Within omnichannel retailing, satisfaction is shaped not only by product quality and physical-store services but also by information consistency, digital navigation, fulfillment processes, and cross-channel problem resolution. Putra and Sobari (2024) found that omnichannel implementation is associated with perceived value and customer satisfaction in Indonesia, while Liu et al. (2024) demonstrated that customer satisfaction mediates the relationship between omnichannel

integration quality and retention-related outcomes. However, whether perceived value functions as a preceding cognitive evaluation that develops into satisfaction remains unclear.

The theoretical foundation of this study is the Stimulus-Organism-Response (S-O-R) framework. In this framework, OCX represents the stimulus because it reflects external customer experiences across retail channels. Perceived value and customer satisfaction represent organism states because they capture internal cognitive and affective evaluations. Customer retention intention represents the response because it reflects the behavioral tendency resulting from these evaluations. Liu et al. (2024) applied similar logic by explaining how omnichannel integration influences retention behavior through satisfaction. However, this study extends the framework by incorporating a sequential evaluation process in which customers first evaluate the benefits received through perceived value before forming a broader satisfaction judgment.

This sequential relationship is also consistent with means-end chain theory, which explains that consumers translate service attributes into perceived consequences before developing broader evaluations (Gutman, 1982; Woodruff, 1997). Therefore, the contribution of this study is not to claim that perceived value precedes satisfaction as a completely new idea, but to examine whether this sequence explains how a multidimensional omnichannel customer experience leads to customer retention intention.

Despite the theoretical relevance of perceived value and satisfaction, previous findings remain inconsistent. Sundjaja et al. (2024) examined 248 ACE Hardware customers in Indonesia and found that channel integration influenced shopping value and satisfaction separately. However, the relationship between shopping value and satisfaction was insignificant ($\beta = 0.016$; $p = 0.408$), and the serial mediation pathway from channel integration $\rightarrow$ shopping value $\rightarrow$ satisfaction $\rightarrow$ revisit intention was also insignificant ($\beta = 0.002$; $p = 0.415$). This finding suggests that channel integration alone may not sufficiently explain how customer value develops into satisfaction.

In contrast, Alim et al. (2025) found that omnichannel customer experience significantly influenced perceived value, customer satisfaction, and customer loyalty among fashion-brand customers in Bangladesh. However, their study examined loyalty rather than retention intention and treated perceived value and satisfaction mainly as separate mechanisms. Furthermore, the market context differs from Indonesian modern retail. These differences indicate the need to examine whether a broader OCX construct can explain the sequential relationship between perceived value, satisfaction, and retention intention.

Accordingly, the research gap of this study does not concern whether perceived value and satisfaction have been examined previously. Instead, the gap concerns the inconsistent explanation of the psychological process through which omnichannel experiences produce relationship continuity. Sundjaja et al. (2024) focused on channel integration and did not support the serial value-satisfaction pathway, while Alim et al. (2025) demonstrated the importance of OCX but examined loyalty rather than retention intention. Liu et al. (2024) supported the role of satisfaction but did not incorporate perceived value as a preceding evaluation. Therefore, this study proposes an integrated model in which OCX functions as a comprehensive stimulus, perceived value and customer satisfaction operate as sequential internal evaluations, and customer retention intention represents the behavioral response.

The Indonesian context strengthens the relevance of this investigation. Although digital channels and payment systems continue to expand, channel expansion does not automatically guarantee an integrated customer experience. Previous Indonesian studies have examined omnichannel implementation and channel integration, but limited attention has been given to how customers psychologically evaluate these experiences before developing retention intentions. Modern retailers therefore need to understand whether customers first recognize value from omnichannel experiences and subsequently develop satisfaction that strengthens their willingness to maintain relationships.

This study contributes in three ways. First, it shifts the outcome variable from broad customer loyalty toward customer retention intention, which is more appropriate for survey-

based behavioral measurement. Second, it conceptualizes omnichannel customer experience as a comprehensive stimulus rather than focusing only on technical channel integration. Third, it examines perceived value and customer satisfaction as serial mediators to clarify the inconsistent findings regarding the value-satisfaction relationship in omnichannel research.

Based on these arguments, this study examines how omnichannel customer experience influences customer retention intention in Indonesian modern retail and how this relationship occurs through perceived value and customer satisfaction. Specifically, this study investigates whether OCX increases perceived value, whether perceived value enhances customer satisfaction, and whether these evaluations ultimately strengthen customer retention intention. By addressing these objectives, this research contributes to a more integrated explanation of the S-O-R mechanism in omnichannel retailing and provides practical insights regarding the psychological processes that retailers need to strengthen to transform cross-channel integration into sustainable customer relationships.

2. METHOD

2.1 Research Design

This study employed an explanatory quantitative design to examine the mechanism linking omnichannel customer experience (OCX) to customer retention intention (CRI) through perceived value (PV) and customer satisfaction (CS). The empirical model was developed based on the Stimulus-Organism-Response (S-O-R) framework, in which OCX was positioned as the stimulus, PV and CS as internal evaluative states, and CRI as the behavioral response.

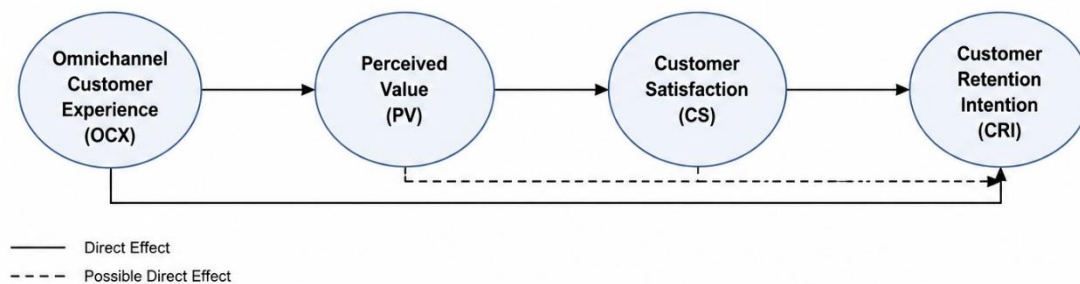


Figure 1. Conceptual Framework

Covariance-Based Structural Equation Modeling (CB-SEM) using IBM SPSS AMOS was selected as the main analytical technique because the study aimed to confirm theoretically established constructs and test a predefined structural model. CB-SEM also allows the measurement and structural models to be evaluated simultaneously while explicitly accounting for measurement error in latent constructs.

To strengthen the temporal ordering of the serial mediation model and reduce potential common method bias, the study used a four-wave time-lagged survey design. At Time 1 (T1), respondents completed the OCX measures and control variables; at Time 2 (T2), PV was measured; at Time 3 (T3), CS was measured; and at Time 4 (T4), CRI was measured. The interval between waves was approximately 10–14 days. Respondents created anonymous self-generated identification codes so that responses could be matched across waves without collecting personally identifiable information. The time separation was intended to provide a stronger temporal basis for the proposed mediation sequence than a single-wave cross-sectional survey, although it was not treated as definitive evidence of causality.

2.2 Population, Unit of Analysis, and Sampling

The target population consisted of adult consumers in Indonesia who had experience shopping through multiple channels of the same modern retailer. The unit of analysis was the individual customer. Modern retail was defined as a retail network operating a physical store and

at least one official digital transaction channel, such as a mobile application, website, official marketplace store, or another digital ordering channel connected to its physical-store services.

To prevent respondents from combining experiences across different companies, each participant was asked to select one modern retailer that they had used most frequently during the previous three months. This retailer was treated as the focal retailer, and all subsequent questionnaire items referred specifically to that retailer.

Purposive sampling was employed because no national sampling frame specifically identifying omnichannel retail customers was available. Respondents were required to meet all of the following criteria:

1. be at least 18 years old;
2. have purchased from the focal retailer at least twice during the previous three months;
3. have used at least two channels belonging to the same focal retailer, one of which had to be a physical store;
4. have experienced cross-channel movement during at least one stage of product search, ordering, payment, pickup, delivery, or return; and
5. be able to identify that the digital channel and physical store belonged to the same retailer.

The target final sample was approximately 400 complete responses matched across all four survey waves. To anticipate attrition in the time-lagged design, approximately 550–600 respondents were targeted for recruitment at T1. The main analysis included only respondents who passed the screening questions, completed all four waves, and did not display problematic response patterns. Respondent distribution across geographical regions and retail categories was monitored to reduce excessive concentration in a single area or retailer category.

2.3 Instrument Development and Variable Operationalization

All constructs were measured using seven-point Likert scales ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Measurement items originally developed in English were adapted into Indonesian through translation, back-translation, and semantic equivalence assessment.

Before the main survey, the instrument was reviewed by at least three academics with expertise in marketing, consumer behavior, or information systems. A pilot test involving approximately 40 respondents with characteristics similar to the target population was then conducted. Pilot respondents were excluded from the main sample. The pilot test assessed item readability, ambiguity, completion time, preliminary reliability, and response variability.

OCX was not measured using the complete scale proposed by Rahman et al. because that instrument includes value as one dimension of omnichannel experience, which could conceptually overlap with PV as an independent mediator in the present model. To maintain conceptual discriminant validity, OCX was operationalized using the five dimensions developed by Shi et al. (2020): connectivity, integration, consistency, flexibility, and personalization. The original instrument contains 22 items measured on a seven-point Likert scale. These five dimensions were modeled as first-order reflective factors loading onto a second-order OCX construct.

PV and CS were adapted from omnichannel literature that conceptualizes value and satisfaction as customer evaluations, particularly Hamouda (2019), Putra and Sobari (2024), and Alim et al. (2025). CRI was operationalized as customers' intention to maintain their relationship with the focal retailer, make future purchases, and resist switching, drawing on retention and continuance literature such as Yin et al. (2022) and Sundjaja et al. (2024).

Table 1. Operationalization of Research Constructs

Construct	Role	Operational Definition	Dimensions/Indicator Focus	Main Sources
Omnichannel Customer Experience (OCX)	Exogenous Stimulus	Customers' evaluation of the quality, continuity, and connectedness of their experience when using multiple channels of the same retailer.	Connectivity, integration, consistency, flexibility, and personalization; 22 items in the original scale.	Shi et al. (2020)

Construct	Role	Operational Definition	Dimensions/Indicator Focus	Main Sources
Perceived Value (PV)	Mediator 1 / Organism	Customers' cognitive assessment of the overall benefits of the omnichannel experience relative to the time, effort, cost, and risk sacrificed.	Relative benefits, time/effort sacrifice, overall value.	Hamouda (2019); Alim et al. (2025)
Customer Satisfaction (CS)	Mediator 2 / Organism	Customers' cognitive-affective evaluation after comparing their actual omnichannel experience with expectations toward the retailer.	Overall satisfaction, expectation confirmation, appropriateness of retailer choice, satisfying experience.	Hamouda (2019); Putra and Sobari (2024); Alim et al. (2025)
Customer Retention Intention (CRI)	Endogenous / Response	Customers' tendency to maintain their relationship with the same retailer in the future.	Intention to continue using, intention to repurchase, switching intention, relationship continuity.	Yin et al. (2022); Sundjaja et al. (2024)

2.4 Data Collection Procedure

The online questionnaire began with an informed-consent statement, a brief explanation of omnichannel shopping experience, and screening questions. Eligible respondents were then instructed to select one focal retailer.

At T1, respondents completed the OCX items and provided control information concerning omnichannel shopping frequency, length of customer relationship, number of channels used, retail category, and geographical region. T2 contained the PV items, T3 contained the CS items, and T4 contained the CRI items. Item order within each construct was randomized to reduce order effects.

Respondents were informed that there were no correct or incorrect answers, that participation was voluntary, and that the results would be analyzed only in aggregate form. Responses across the four waves were matched using anonymous identification codes.

Before analysis, the dataset was screened for duplicate responses, unrealistically short completion times, straight-lining, repeated identical response patterns, and failed attention checks when applicable. Responses that could not be matched across all four waves or failed the predefined data-quality criteria were excluded from the main analysis.

Attrition analysis was also conducted by comparing baseline characteristics of respondents who completed all four waves with those who discontinued participation before T4. This procedure was used to assess whether sample loss could introduce systematic attrition bias.

2.5 Data Analysis

Data analysis was conducted in two major stages. First, IBM SPSS was used for data screening, descriptive statistics, preliminary reliability assessment, correlation analysis, and diagnostic testing. Missing values, univariate distributions, extreme observations, skewness, and kurtosis were examined. Multivariate outliers were assessed using Mahalanobis distance.

Because maximum likelihood estimation in CB-SEM is sensitive to substantial multivariate non-normality, the distributional properties of the data were evaluated before structural estimation. When meaningful deviations from normality were detected, parameter inference and model-fit assessment were strengthened using bootstrap procedures and the Bollen-Stine bootstrap available in AMOS.

The second stage involved a two-step CB-SEM procedure in AMOS. Confirmatory Factor Analysis (CFA) was first conducted to evaluate the measurement model, followed by evaluation of the structural model. For OCX, hierarchical CFA was performed with connectivity, integration, consistency, flexibility, and personalization modeled as first-order factors loading onto the second-order OCX construct.

Reflective indicators were considered acceptable when standardized factor loadings were at least 0.50, with values of 0.70 or higher preferred. Indicator deletion was not based solely on statistical criteria but also considered theoretical and content coverage. Internal consistency

reliability was evaluated using Cronbach's alpha and composite reliability (CR), with values of at least 0.70 considered acceptable. Convergent validity was evaluated using Average Variance Extracted (AVE), with values of at least 0.50 indicating adequate convergence.

Discriminant validity was examined through interconstruct correlations and the Heterotrait-Monotrait ratio (HTMT). An HTMT value below 0.85 was used as a conservative criterion, while values below 0.90 were considered acceptable for conceptually related constructs.

Model fit was evaluated using multiple goodness-of-fit indices rather than a single criterion. The indices included chi-square divided by degrees of freedom (χ^2/df), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). The following thresholds were used as general guidelines:

- a) $\chi^2/df \leq 3.00$;
- b) CFI and TLI ≥ 0.90 ;
- c) RMSEA and SRMR ≤ 0.08 .

Values approaching or exceeding 0.95 for CFI and TLI and values approaching or below 0.06 for RMSEA and SRMR were interpreted as evidence of stronger model fit. Modification indices were considered only when suggested modifications were theoretically meaningful and were not used solely to improve statistical fit.

After an acceptable measurement model was established, the structural model was estimated to examine direct and indirect relationships. Structural paths were reported using standardized estimates, critical ratios, p-values, and confidence intervals.

Indirect effects were tested using 5,000 bootstrap samples with bias-corrected 95% confidence intervals. An indirect effect was considered statistically significant when its confidence interval did not include zero. Three specific indirect effects were examined:

1. OCX $\rightarrow$ PV $\rightarrow$ CRI;
2. OCX $\rightarrow$ CS $\rightarrow$ CRI; and
3. OCX $\rightarrow$ PV $\rightarrow$ CS $\rightarrow$ CRI.

The third pathway represented the primary test of serial mediation. The direct OCX $\rightarrow$ CRI path remained in the structural model so that the type and extent of mediation could be evaluated without requiring the direct relationship to be statistically significant beforehand.

The structural relationships were expressed as follows:

$$\begin{aligned} PV &= \beta_{10} + \beta_{11}OCX + \Gamma Controls + \varepsilon_1 \\ CS &= \beta_{20} + \beta_{21}OCX + \beta_{22}PV + \Gamma Controls + \varepsilon_2 \\ CRI &= \beta_{30} + \beta_{31}OCX + \beta_{32}PV + \beta_{33}CS + \Gamma Controls + \varepsilon_3 \end{aligned}$$

where OCX represents omnichannel customer experience, PV represents perceived value, CS represents customer satisfaction, CRI represents customer retention intention, β represents the estimated structural coefficients, Γ represents the effects of control variables, and ε represents residual terms.

The main control variables included omnichannel shopping frequency, length of customer relationship, number of channels used, and retail category because these factors could be associated with the intensity of customer experience and retention tendency. The main model was assessed both with and without the control variables as a sensitivity analysis. Additional group comparisons based on retail category or channel-use intensity could be performed when sample distribution was sufficient, although these analyses were not used as the primary basis for hypothesis evaluation.

2.6 Bias Control and Ethical Considerations

Common method bias was controlled primarily through procedural measures. These included temporal separation of the focal constructs, anonymity, use of the same focal retailer across survey waves, randomized item order, separation of questionnaire sections, and wording that did not disclose the expected direction of the hypotheses.

As an additional statistical assessment, the theoretical CFA model was compared with a single-factor model. When model identification permitted, a common latent method factor was also examined as a sensitivity analysis. The study did not rely solely on Harman's single-factor test to claim the absence of common method bias.

Participation was voluntary and proceeded only after respondents provided informed consent. Data were analyzed in aggregate form, and the anonymous matching codes were not designed to reveal respondents' identities. Personal information that was not necessary for the research objectives was not collected. The survey followed the applicable institutional research ethics requirements, including formal ethical review or approval when required by the researchers' institution or the target journal.

2.7 Measurement of Research Achievement

Achievement of the research objectives was evaluated through the performance of the measurement and structural models. Measurement quality was considered adequate when factor loadings, CR, AVE, HTMT, and overall model-fit indices met the predefined criteria. The proposed direct and mediation hypotheses were evaluated using standardized structural coefficients and bias-corrected bootstrap confidence intervals.

The study specifically examined whether a more connected, integrated, consistent, flexible, and personalized omnichannel experience increased customers' perceived value; whether higher perceived value subsequently strengthened customer satisfaction; and whether these sequential evaluations ultimately increased customer retention intention. The four-wave time-lagged design, multidimensional OCX measurement, hierarchical CFA, and bootstrap estimation of specific indirect effects provided the methodological basis for evaluating this serial mediation mechanism.

3. RESULTS AND DISCUSSION

3.1. Sample Characteristics and Respondent Retention

The recruitment process began with 574 respondents who met the screening criteria at Time 1 (T1). Of these respondents, 531 continued to T2, 493 completed T3, and 452 completed T4. After anonymous-code matching and data-quality assessment, 24 responses were excluded because of unusual response patterns, duplication, unrealistic completion times, or incomplete matching across survey waves. The resulting analytical sample consisted of 428 respondents, representing 74.6% of the respondents who initially met the eligibility criteria.

Table 2. Respondent Retention Across the Time-Lagged Survey

Stage	Number of Respondents	Retention from T1 (%)	Description
T1 – OCX and control variables	574	100.0	Met screening criteria
T2 – Perceived Value	531	92.5	Matched using anonymous codes
T3 – Customer Satisfaction	493	85.9	Matched with T1 and T2
T4 – Customer Retention Intention	452	78.7	Completed all four waves
Final analytical sample	428	74.6	Passed data-quality assessment

An analysis comparing respondents who completed all survey waves with those who discontinued before T4 showed no significant differences in baseline OCX scores, shopping frequency, age group, or gender distribution, with all p-values above 0.10. This pattern would suggest that attrition was unlikely to represent a strong systematic source of bias.

Table 3. Respondent Profile in the Analytical Sample (n = 428)

Characteristic	Category	n	%
Gender	Female	247	57.7
	Male	181	42.3
Age	18–24 years	137	32.0
	25–34 years	146	34.1
	35–44 years	84	19.6
	≥45 years	61	14.3
Region	Java	201	47.0
	Sumatra	84	19.6
	Sulawesi	62	14.5
	Kalimantan	42	9.8
	Bali/Nusa Tenggara	26	6.1
	Maluku/Papua	13	3.0
Focal retailer category	Minimarket	176	41.1
	Supermarket/hypermarket	124	29.0
	Fashion retail	63	14.7
	Department store	35	8.2
	Others	30	7.0

The sample indicates considerable variation in age, geographical location, and focal retailer category. Female respondents represented 57.7% of the sample, while the largest age group consisted of respondents aged 25–34 years. Nearly half of the respondents were located in Java, although consumers from other major Indonesian regions were also represented. Minimarkets constituted the most frequently selected focal retail category, followed by supermarkets and hypermarkets. This distribution provides an appropriate context for examining omnichannel experiences across different forms of modern retail rather than focusing on a single retail format.

3.2. Data Quality and Descriptive Statistics

Initial data screening identified no missing values in the final analytical sample because only responses successfully matched across the four survey waves were retained. Indicator skewness ranged from -0.78 to 0.31, while kurtosis ranged from -0.58 to 1.44, indicating no severe univariate normality violations. A mild departure from multivariate normality was identified; therefore, bootstrap procedures were retained for parameter inference and indirect-effect testing.

Mahalanobis distance was also examined to identify potential multivariate outliers. Cases were not excluded mechanically on statistical grounds alone. Instead, potential outliers were assessed together with completion time, response patterns, consistency, and other indicators of response quality.

Table 4. Descriptive Statistics and Interconstruct Correlations

Construct	Mean	SD	1	2	3	4
1.Omnichannel Customer Experience	5.34	0.84	1.00			
2.Perceived Value	5.25	0.92	0.62	1.00		
3.Customer Satisfaction	5.31	0.90	0.54	0.68	1.00	
4.Customer Retention Intention	5.18	0.98	0.49	0.58	0.67	1.00

Note: In the results, all interconstruct correlations were significant at $p < 0.001$.

All construct means were above the midpoint of the seven-point scale. OCX recorded the highest mean ($M = 5.34$; $SD = 0.84$), followed by customer satisfaction ($M = 5.31$; $SD = 0.90$),

perceived value ($M = 5.25$; $SD = 0.92$), and customer retention intention ($M = 5.18$; $SD = 0.98$). The correlations were positive and moderate to strong but remained below levels that would suggest construct redundancy. This pattern is theoretically consistent with the expectation that stronger omnichannel experiences are associated with higher perceived value, satisfaction, and intention to maintain the relationship with the retailer.

3.3. Measurement Model Evaluation

Confirmatory Factor Analysis was conducted hierarchically. In the first stage, connectivity, integration, consistency, flexibility, and personalization were modeled as first-order OCX dimensions. The standardized indicator loadings ranged from 0.72 to 0.90. In the second stage, these five dimensions loaded onto the second-order OCX construct, with standardized loadings ranging from 0.76 to 0.84.

No indicators were removed solely on the basis of modification indices. The measurement structure was maintained whenever the indicators remained theoretically relevant to the conceptual domain of the construct.

Table 5. Reliability and Convergent Validity

Construct/Dimension	Standardized Loading	Cronbach's α	CR	AVE
Connectivity	0.74–0.87	0.88	0.91	0.67
Integration	0.78–0.90	0.90	0.93	0.72
Consistency	0.73–0.86	0.87	0.91	0.66
Flexibility	0.72–0.85	0.85	0.89	0.63
Personalization	0.76–0.89	0.89	0.92	0.70
Second-order OCX	0.76–0.84	0.94	0.95	0.64
Perceived Value	0.78–0.87	0.88	0.91	0.72
Customer Satisfaction	0.81–0.90	0.91	0.93	0.77
Customer Retention Intention	0.76–0.88	0.89	0.92	0.73

All Cronbach's alpha and composite reliability values exceeded 0.70, while all AVE values exceeded 0.50. The measurement model therefore met the criteria for internal consistency and convergent validity. The relatively balanced second-order loadings also indicate that OCX is not dominated by a single dimension but reflects the combined contribution of connectivity, integration, consistency, flexibility, and personalization.

Table 6. Discriminant Validity Based on HTMT

Construct	OCX	PV	CS	CRI
OCX	–			
PV	0.71	–		
CS	0.68	0.78	–	
CRI	0.60	0.67	0.76	–

HTMT values ranged from 0.60 to 0.78 and remained below the conservative threshold of 0.85. The results therefore indicate adequate discriminant validity. This distinction is particularly important for perceived value and customer satisfaction because the two constructs are theoretically related but must remain empirically distinguishable for the proposed serial mediation mechanism to be interpreted meaningfully.

3.4. Measurement and Structural Model Fit

The measurement and structural models were evaluated using several goodness-of-fit indices.

Table 7. Goodness-of-Fit Results

Model	χ^2/df	CFI	TLI	RMSEA	SRMR	Interpretation
Measurement model	2.07	0.948	0.943	0.050	0.046	Good fit
Structural model	2.19	0.941	0.936	0.053	0.051	Good fit
Single-factor model	6.84	0.610	0.580	0.117	0.123	Inadequate fit

The measurement model demonstrated an acceptable fit, with $\chi^2/df = 2.07$, CFI = 0.948, TLI = 0.943, RMSEA = 0.050, and SRMR = 0.046. The structural model remained acceptable after the hypothesized paths were introduced, with $\chi^2/df = 2.19$, CFI = 0.941, TLI = 0.936, RMSEA = 0.053, and SRMR = 0.051.

In contrast, the single-factor model produced substantially poorer fit. Although this comparison does not establish the complete absence of common method bias, it indicates that the covariance structure among the focal constructs is not adequately represented by a single common factor.

3.5. Structural Model and Hypothesis Testing

The structural model showed positive and statistically significant coefficients for all six direct paths. OCX exerted its strongest direct effect on perceived value ($\beta = 0.62$; $p < 0.001$), while customer satisfaction was the strongest direct predictor of customer retention intention ($\beta = 0.47$; $p < 0.001$). Perceived value also had a strong positive effect on customer satisfaction ($\beta = 0.51$; $p < 0.001$), supporting the proposed sequence from cognitive value evaluation to overall satisfaction.

Table 8. Structural Path Results

Hypothesis	Structural Path	B	SE	C.R.	p	95% CI	Decision
H1	OCX $\rightarrow$ PV	0.62	0.058	10.70	<0.001	0.50–0.72	Supported
H2	OCX $\rightarrow$ CS	0.22	0.061	3.61	<0.001	0.10–0.34	Supported
H3	OCX $\rightarrow$ CRI	0.14	0.056	2.50	0.012	0.03–0.25	Supported
H4	PV $\rightarrow$ CS	0.51	0.060	8.50	<0.001	0.40–0.62	Supported
H5	PV $\rightarrow$ CRI	0.19	0.065	2.92	0.004	0.06–0.32	Supported
H6	CS $\rightarrow$ CRI	0.47	0.061	7.70	<0.001	0.35–0.58	Supported

The explanatory power of the model was also substantive. OCX explained 38% of the variance in perceived value ($R^2 = 0.38$). OCX and perceived value jointly explained 53% of the variance in customer satisfaction ($R^2 = 0.53$). Finally, OCX, perceived value, and customer satisfaction explained 56% of the variance in customer retention intention ($R^2 = 0.56$).

These values indicate that more than half of the variation in retention intention could be accounted for by the experience-value-satisfaction mechanism proposed in the study.

3.6. Serial Mediation Analysis

Indirect effects were tested using 5,000 bootstrap samples with bias-corrected 95% confidence intervals. In the model, all three specific indirect effects were significant because none of the confidence intervals included zero.

Table 9. Bootstrap Results for Specific Indirect Effects

Hypothesis	Mediation Path	Indirect β	Boot SE	95% BC CI	Decision
H7	OCX $\rightarrow$ PV $\rightarrow$ CRI	0.12	0.034	0.058–0.190	Supported
H8	OCX $\rightarrow$ CS $\rightarrow$ CRI	0.10	0.033	0.041–0.173	Supported
H9	OCX $\rightarrow$ PV $\rightarrow$ CS $\rightarrow$ CRI	0.15	0.029	0.098–0.212	Supported

The serial indirect effect of $OCX \rightarrow PV \rightarrow CS \rightarrow CRI$ was $\beta = 0.15$ and represented the largest specific indirect effect in the model. The indirect effect through perceived value alone was $\beta = 0.12$, while the indirect effect through customer satisfaction alone was $\beta = 0.10$.

The combined indirect effect of OCX on customer retention intention was $\beta = 0.37$, whereas the direct effect remained positive and significant at $\beta = 0.14$. This pattern is consistent with partial complementary mediation. OCX retained a direct relationship with retention intention, but a substantial portion of its association operated through customers' internal evaluations of value and satisfaction.



Note: *** $p < 0.001$

Figure 2. Research Structural Model

Conceptually, this result suggests that customers do not remain with a retailer simply because its channels are technologically connected. Cross-channel experiences must first generate meaningful benefits, and these benefits must contribute to customer satisfaction before stronger retention intentions develop.

3.7. Sensitivity Analysis and Common Method Bias

The model was re-estimated by including omnichannel shopping frequency, length of customer relationship, number of channels used, and retail category as control variables. In the results, shopping frequency had a small positive effect on customer retention intention ($\beta = 0.09$; $p = 0.032$). Customer tenure, number of channels used, and retail category were not statistically significant at the 5% level.

More importantly, introducing the control variables did not alter the direction or statistical significance of the main structural relationships, and changes in the standardized coefficients of the focal relationships remained below 0.02. This pattern suggests that the central relationships were relatively stable across model specifications.

Common method bias was addressed primarily through the time-separated measurement design. As an additional statistical assessment, the theoretical measurement model was compared with a single-factor model. As shown in Table 7, the single-factor model produced substantially poorer fit (CFI = 0.610; TLI = 0.580; RMSEA = 0.117; SRMR = 0.123).

Changes in standardized loadings remained below 0.08 and the substantive conclusions regarding the structural paths remained unchanged. These results would reduce, but not completely eliminate, concerns regarding common method variance. Therefore, the study should avoid claiming that common method bias has been entirely removed.

3.8. Discussion

3.8.1. Omnichannel Customer Experience as a Stimulus of Perceived Value and Retention Intention

The structural results indicate that OCX has its strongest effect on perceived value ($\beta = 0.62$; $p < 0.001$), while also maintaining a smaller direct effect on customer retention intention ($\beta = 0.14$; $p = 0.012$). OCX also explains 38% of the variation in perceived value. This pattern suggests that omnichannel experience is not merely an operational characteristic but a customer stimulus

that is initially translated into an evaluation of the benefits received.

From a customer-journey perspective, experience develops cumulatively through multiple touchpoints before, during, and after purchase. Consequently, continuity across the journey may be more important than the performance of a single channel in isolation (Lemon & Verhoef, 2016). The finding is also consistent with Shi et al. (2020), who conceptualized OCX as a multidimensional construct and demonstrated that stronger omnichannel experiences produce more favorable shopping responses.

The strong relationship between OCX and perceived value can be understood through the multidimensional structure of OCX. In this study, connectivity, integration, consistency, flexibility, and personalization represent the retailer's capacity to connect processes, maintain information consistency, provide channel-switching flexibility, and adapt interactions to customer needs. Rahman et al. (2022) similarly conceptualized omnichannel experience as an aggregation of several qualities encountered throughout the retail ecosystem. Gao et al. (2021) showed that channel integration can influence both cognitive and affective dimensions of customer experience, while Balbín Buckley and Marquina Feldman (2024) demonstrated the relevance of price and product integration, transaction information, fulfillment, and promotional integration in shaping omnichannel experience.

The result therefore suggests that technical integration creates value only when customers actually experience smoother processes. Shen et al. (2018) showed that channel integration quality increases perceived fluency, which subsequently encourages omnichannel service use. Quach et al. (2022) also found that service consistency and transparency influence customer flow and perceived risk. Within the S-O-R perspective, the present model extends this logic by treating the overall omnichannel experience as the stimulus and perceived value as an internal evaluation explaining how that stimulus is translated into behavioral responses.

Personalization provides another explanation for the value-generating role of OCX. Tyrväinen et al. (2020) showed that personalization can strengthen cognitive and emotional customer experience and contribute to loyalty. Lee et al. (2019) found that channel integration quality increases customer engagement, which subsequently influences repurchase intention and positive word-of-mouth. Rahman et al. (2025) further suggested that the consequences of OCX may vary according to the stage of the customer-retailer relationship.

These studies reinforce the interpretation that OCX is not simply an evaluation of channel design but a relational experience capable of generating functional and emotional benefits. For Indonesian modern retailers, personalization should therefore remain consistent across applications, websites, marketplaces, messaging services, and physical stores so that customers do not feel that they are beginning a new relationship each time they change channels.

Nevertheless, the smaller direct OCX → CRI coefficient relative to the total indirect effect indicates that a positive experience alone may not fully explain retention. Gao and Huang (2021) showed that channel-integration quality can influence loyalty through relational mechanisms such as engagement and relationship-program receptiveness. De and Khoa (2026) similarly found that customer experience in omnichannel retailing contributes to satisfaction and repurchase intention. Therefore, omnichannel success should not be evaluated only through channel availability or application adoption, but through whether those experiences generate value, satisfaction, and continued relationship intentions.

3.8.2. Perceived Value as a Cognitive Mechanism

Perceived value occupies a central position in the proposed mechanism (Mirza et al, 2025). Its effect on customer satisfaction is relatively strong ($\beta = 0.51$; $p < 0.001$), while its direct effect on customer retention intention remains significant ($\beta = 0.19$; $p = 0.004$). The specific indirect effect of OCX on CRI through perceived value is also significant ($\beta = 0.12$).

These results indicate that customers do not merely assess whether the retailer's channels function correctly. They evaluate whether the convenience, speed, information, flexibility, and overall experience justify the time, effort, monetary cost, and potential risk involved (Zhou &

Hudin, 2025). Huré et al. (2017) explained that omnichannel shopping value is generated across multiple touchpoints and depends partly on the consistency of the cross-channel experience. Hamouda (2019) likewise demonstrated the importance of omnichannel integration quality and perceived value in shaping satisfaction and loyalty.

Value in an omnichannel environment therefore extends beyond price savings. It may include functional benefits such as easier product search, time efficiency, fulfillment options, and information transparency, as well as emotional benefits associated with convenience, security, and perceived control. Sharma and Fatima (2024) emphasized the importance of perceived value in explaining omnichannel use, while Croitoru et al. (2024) showed that different value dimensions may produce different effects on satisfaction, retention, and loyalty.

This distinction is particularly relevant in emerging-market settings. Putra and Sobari (2024) showed that omnichannel implementation in an Indonesian service context influences service quality, perceived value, and customer satisfaction. Alim et al. (2025) similarly found that omni-channel customer experience enhances perceived value, satisfaction, and customer loyalty in the fashion sector. The present model extends these findings by positioning perceived value not only as an outcome of OCX but also as a direct antecedent of satisfaction and retention intention.

The relationship between perceived value and satisfaction is particularly important because previous findings have not been fully consistent. Sundjaja et al. (2024) examined shopping value and customer satisfaction in explaining continuance intention to revisit among Indonesian omnichannel consumers but did not obtain strong support for a serial shopping value-satisfaction pathway. In the model developed here, however, the PV → CS relationship is strong and significant.

One possible explanation is that the present model uses overall OCX as a broader stimulus rather than channel integration alone. OCX captures not only technical integration but also connectivity, consistency, flexibility, and personalization. A richer experience may therefore be more capable of generating value that subsequently translates into satisfaction.

Managerially, this result implies that every omnichannel investment should be linked to a customer benefit that can be clearly recognized. Inventory integration should reduce stock uncertainty; promotional integration should prevent confusing price differences; payment integration should reduce transaction effort; fulfillment integration should provide useful options; and personalization should simplify product discovery rather than create additional complexity.

3.8.3. Customer Satisfaction as the Strongest Direct Predictor of Retention Intention

Customer satisfaction is the strongest direct predictor of customer retention intention in the structural model ($\beta = 0.47$; $p < 0.001$). The indirect effect of OCX through satisfaction is also significant ($\beta = 0.10$). This result suggests that after customers evaluate the omnichannel experience and the benefits obtained from it, satisfaction becomes the internal evaluation most closely associated with their willingness to maintain the relationship.

The finding is consistent with Lazaris et al. (2021), who showed that greater omnichannel integration increases customer satisfaction and loyalty intentions. Cotarelo et al. (2021) similarly found that satisfaction positively affects loyalty across omnichannel purchasing scenarios. Liu et al. (2024) further demonstrated that customer satisfaction partially mediates the effect of omnichannel integration quality on cross-channel retention behavior.

The importance of satisfaction can also be explained by the cumulative nature of customer experience. Customers do not evaluate retailers based solely on one transaction or one channel. Instead, they develop an overall relationship evaluation from a sequence of interactions. Customer experience develops across the entire journey and involves multiple touchpoints (Lemon & Verhoef, 2016; Nguyen et al, 2023).

In an omnichannel context, a negative fulfillment or return experience may therefore reduce the benefits created by an otherwise effective digital interaction. De and Khoa (2026) similarly demonstrated that omnichannel experience affects satisfaction and repurchase

intention, reinforcing the role of satisfaction as a bridge between experience and post-purchase behavioral intentions.

The result also relates to customer retention and stickiness. Yin et al. (2022) emphasized the relevance of brand experience and purchasing behavior in omnichannel customer retention. Lin et al. (2023) showed that channel integration quality contributes to commitment and trust, which subsequently strengthen customer stickiness. Gao and Huang (2021) also found that channel integration can influence loyalty through engagement and relationship-related mechanisms.

Operationally, satisfaction is highly sensitive to elements that customers may never identify as technological problems. Quach et al. (2022) showed that service consistency and transparency influence flow, perceived risk, and loyalty. Cotarelo et al. (2021) identified timeliness, availability, product condition, and return processes as important aspects of satisfaction within omnichannel logistics.

Consequently, retailers should not attempt to increase satisfaction through interface design or digital promotions alone. Inventory errors, delivery delays, unclear return procedures, disconnected loyalty points, and inconsistent staff responses across channels may damage the overall retailer evaluation. Because satisfaction is the strongest direct predictor of retention intention, improving the reliability of existing touchpoints may be more important than continuously adding new channels.

3.8.4. Serial Mediation of Perceived Value and Customer Satisfaction

The most important result of the model is the significant serial indirect pathway OCX → PV → CS → CRI, with an indirect effect of $\beta = 0.15$. This is larger than the specific indirect effect through perceived value alone ($\beta = 0.12$) and through satisfaction alone ($\beta = 0.10$). The combined indirect effect of OCX on retention intention reaches $\beta = 0.37$, compared with a direct effect of $\beta = 0.14$.

This pattern supports the Stimulus-Organism-Response logic in which omnichannel experience does not automatically produce retention intentions but is processed through customers' internal evaluations. Zhang et al. (2018) demonstrated the relevance of S-O-R mechanisms in omnichannel settings through empowerment, trust, satisfaction, and patronage intention. The present model further differentiates two internal stages: perceived value as a predominantly cognitive assessment of benefits relative to sacrifices and customer satisfaction as a broader cognitive-affective evaluation.

The serial mechanism also extends studies that have generally treated perceived value and satisfaction as parallel mediators. Alim et al. (2025) showed that both perceived value and satisfaction contribute to the relationship between omni-channel customer experience and customer loyalty, while Sundjaja et al. (2024) demonstrated the relevance of shopping value and satisfaction for continuance intention in the Indonesian context. The present model proposes a more process-oriented sequence in which a consistent omnichannel experience first creates recognizable value, that value strengthens satisfaction, and satisfaction subsequently supports retention intention.

Another contribution concerns the operationalization of OCX. Rahman et al. (2022) developed a broad OCX measure that incorporates value as part of the overall construct. However, including value within OCX would create potential conceptual overlap when perceived value is modeled separately as a mediator. For this reason, the present study adopts the dimensions of connectivity, integration, consistency, flexibility, and personalization from Shi et al. (2020) to form a second-order OCX construct. The HTMT values below 0.85 indicate that OCX, perceived value, customer satisfaction, and customer retention intention remain empirically distinguishable.

From a managerial perspective, the serial pathway suggests that customer-retention strategies can be organized into three layers. Because omnichannel investments are often directed toward application development, data integration, payment options, delivery systems, and

additional sales channels without sufficient evaluation of whether these investments actually create customer value, the results suggest that managerial priorities should not focus merely on increasing the number of digital features. The first layer is experience quality, which requires connected channels, consistent information, flexible fulfillment, integrated transactions, and relevant personalization. The second is value translation, where retailers ensure that customers can recognize tangible benefits from this integration, reducing customer effort, maintaining information and price consistency, simplifying channel switching, accelerating order fulfillment, and facilitating problem resolution. The third is satisfaction assurance, where reliable operations and effective service recovery ensure that the promised benefits translate into positive overall evaluations. Understanding these mechanisms can help retailers allocate omnichannel investments to touchpoints that contribute most strongly to sustainable customer relationships.

This interpretation is consistent with evidence from Buckley and Feldman (2024), Gao et al. (2021), and Quach et al. (2022) regarding channel integration and experience quality; Huré et al. (2017) and Sharma and Fatima (2024) regarding value creation; and Lazaris et al. (2021), Liu et al. (2024), and Putra and Sobari (2024) regarding customer satisfaction.

Although the model explains a substantial proportion of customer retention intention ($R^2 = 0.56$), additional variables may further improve its explanatory capacity. Rahman et al. (2025) suggest that customer-relationship stages can change the consequences of OCX, while De and Khoa (2026) indicate that prior omnichannel experience may influence repurchase intention. Yin et al. (2022) also demonstrate the role of brand experience and purchasing behavior in customer retention.

These findings should be interpreted alongside several limitations. First, the use of purposive, non-probability sampling to identify omnichannel customers means the analytical sample may not represent the full population of Indonesian modern retail shoppers, which constrains the generalizability of the estimated effects. Second, the study was conducted within a single-country context; the extent to which the proposed serial mechanism holds in other markets with different retail infrastructures and digital adoption rates remains untested. Third, customer retention intention was measured through self-reported survey responses rather than observed purchasing behavior, so the correspondence between stated intention and actual future retention cannot be confirmed within this design.

Future empirical extensions may therefore examine relationship tenure, shopping habits, product involvement, category involvement, switching costs, or trust as moderators or additional explanatory mechanisms. Actual transaction-based retention may also be used as an outcome to complement self-reported retention intention. Furthermore, differences among minimarkets, supermarkets, fashion retailers, and department stores could be examined through multi-group analysis when sufficient observations are available within each category.

Overall, the proposed results indicate that successful omnichannel retailing should not be interpreted simply as the technical integration of multiple channels. Its contribution to customer retention depends on whether customers experience the integrated system as valuable and whether this perceived value develops into satisfaction. The serial mechanism therefore provides a more detailed explanation of how technological and operational integration may ultimately contribute to sustainable customer relationships.

4. CONCLUSIONS AND SUGGESTION

This study set out to examine how omnichannel customer experience influences customer retention intention in Indonesian modern retail, and whether this relationship operates through the sequential evaluations of perceived value and customer satisfaction. The results support this sequence: OCX positively influenced perceived value, customer satisfaction, and retention intention, and the serial indirect pathway $OCX \rightarrow PV \rightarrow CS \rightarrow CRI$ produced the largest specific indirect effect among the three pathways tested. Perceived value and customer satisfaction therefore function as distinct but sequentially related mechanisms rather than interchangeable

evaluations, with customer satisfaction emerging as the strongest direct predictor of retention intention.

From a practical perspective, modern retailers should shift their emphasis from simply expanding the number of channels toward orchestrating a consistent cross-channel experience. Product information, prices, promotions, inventory availability, payments, fulfilment, returns, and customer data should remain connected and consistent across channels. Retailers should also ensure that such integration creates recognizable value through time efficiency, convenience, flexibility, security, and relevant personalization, while customer satisfaction is maintained through reliable operations and consistent service recovery. These efforts can help omnichannel investment generate not only greater channel usage but also stronger reasons for customers to maintain long-term relationships with the retailer.

Beyond its substantive findings, the study's methodological design, a multidimensional OCX construct, a four-wave time-lagged survey, hierarchical CFA, and bootstrap-based serial mediation testing within a single CB-SEM framework, provides a stronger basis for distinguishing these constructs and testing their proposed temporal sequence than a single-wave cross-sectional design would allow. Building on the limitations noted in Section 3.8, future research should extend this model across other modern retail categories, test moderators such as relationship tenure, switching costs, and channel-use intensity, and where possible replace self-reported retention intention with longitudinal transaction data to verify whether stated intentions translate into actual retention behavior.

REFERENCES

- Alim, M. A., Shafiullah, M., Sazid, Y. K., Datta, K., Huq, M. F.-U., Akib, A. A., & Hossain, M. J. (2025). Omni-channel customer experience and advancing customer loyalty. *Asian Academy of Management Journal*, 30(1), 97–119. <https://doi.org/10.21315/aamj2025.30.1.4>
- Balbín Buckley, J. A., & Marquina Feldman, P. S. (2024). Effects of channel integration on the omnichannel customer experience. *Cogent Business & Management*, 11(1), Article 2364841. <https://doi.org/10.1080/23311975.2024.2364841>
- BPS-Statistics Indonesia. (2025). *Statistik e-commerce 2024*. <https://www.bps.go.id/id/publication/2025/11/28/647323224ecc656c2933571b/statistik-e-commerce-2024.html>
- Bank Indonesia. (2026). *Tinjauan kebijakan moneter Mei 2026*. <https://www.bi.go.id/id/publikasi/laporan/Pages/TKM-Mei-2026.aspx>
- Cotarelo, M., Calderón, H., & Fayos, T. (2021). A further approach in omnichannel LSQ, satisfaction and customer loyalty. *International Journal of Retail & Distribution Management*, 49(8), 1133–1153. <https://doi.org/10.1108/IJRDM-01-2020-0013>
- Croitoru, G., Capatina, A., Florea, N. V., Codignola, F., & Sokolic, D. (2024). A cross-cultural analysis of perceived value and customer loyalty in restaurants. *European Research on Management and Business Economics*, 30(3), Article 100265. <https://doi.org/10.1016/j.iedeen.2024.100265>
- De, D. H., & Khoa, B. T. (2026). How customer experience drives repurchase intention in omnichannel retailing: The moderating role of prior omnichannel shopping experience. *Journal of Open Innovation: Technology, Market, and Complexity*, 12(2), Article 100795. <https://doi.org/10.1016/j.joitmc.2026.100795>
- 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, Article 102688. <https://doi.org/10.1016/j.jretconser.2021.102688>
- Gao, W., Fan, H., Li, W., & Wang, H. (2021). Crafting the customer experience in omnichannel

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- contexts: The role of channel integration. *Journal of Business Research*, 126, 12–22. <https://doi.org/10.1016/j.jbusres.2020.12.056>
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60–72. <https://doi.org/10.1177/002224298204600207>
- Hamouda, M. (2019). Omni-channel banking integration quality and perceived value as drivers of consumers' satisfaction and loyalty. *Journal of Enterprise Information Management*, 32(4), 608–625. <https://doi.org/10.1108/JEIM-12-2018-0279>
- 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. <https://doi.org/10.1016/j.jretconser.2017.08.011>
- Lazaris, C., Sarantopoulos, P., Vrechopoulos, A., & Doukidis, G. (2021). Effects of increased omnichannel integration on customer satisfaction and loyalty intentions. *International Journal of Electronic Commerce*, 25(4), 440–468. <https://doi.org/10.1080/10864415.2021.1967005>
- Lee, Z. W. Y., Chan, T. K. H., Chong, A. Y.-L., & Thadani, D. R. (2019). Customer engagement through omnichannel retailing: The effects of channel integration quality. *Industrial Marketing Management*, 77, 90–101. <https://doi.org/10.1016/j.indmarman.2018.12.004>
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96. <https://doi.org/10.1509/jm.15.0420>
- Lin, S.-W., Huang, E. Y., & Cheng, K.-T. (2023). A binding tie: Why do customers stick to omnichannel retailers? *Information Technology & People*, 36(3), 1126–1159. <https://doi.org/10.1108/ITP-01-2021-0063>
- Liu, Q., Tian, J., & Huang, L. (2024). Influence of omnichannel integration quality on consumer cross-channel retention behavior. *Procedia Computer Science*, 242, 633–639. <https://doi.org/10.1016/j.procs.2024.08.120>
- Mirza, F., Ting, D. H., & Hussain, A. (2025). Understanding consumer repurchase and word-of-mouth behavior in brick-and-mortar retail: Role of retail store attributes, brand loyalty and perceived value. *South Asian Journal of Marketing*, 6(2), 73–88. <https://doi.org/10.1108/SAJM-01-2024-0002>
- Nguyen, D. T. N., Pham, M., Chovancová, M., & Hoang, S. D. (2023). How service operations, perceived benefit, and psychological ownership enhance customer retention in retail: Evidence in Vietnam supermarkets. *Cogent Business & Management*, 10(2). <https://doi.org/10.1080/23311975.2023.2200519>
- Putra, Y. Q., & Sobari, N. (2024). Effect of omnichannel implementation on service quality, customer satisfaction, and perceived value in Indonesian restaurant. *Indonesian Journal of Business and Entrepreneurship*, 10(1), 108–120. <https://doi.org/10.17358/ijbe.10.1.108>
- Quach, S., Barari, M., Moudrý, D. V., & Quach, K. (2022). Service integration in omnichannel retailing and its impact on customer experience. *Journal of Retailing and Consumer Services*, 65, Article 102267. <https://doi.org/10.1016/j.jretconser.2020.102267>
- Rahman, S. M., Carlson, J., Gudergan, S. P., Wetzels, M., & Grewal, D. (2022). Perceived omnichannel customer experience (OCX): Concept, measurement, and impact. *Journal of Retailing*, 98(4), 611–632. <https://doi.org/10.1016/j.jretai.2022.03.003>
- Rahman, S. M., Carlson, J., Gudergan, S. P., Wetzels, M., & Grewal, D. (2025). How do omnichannel customer experiences affect customer engagement? Theory and empirical validation. *Journal of Business Research*, 189, Article 115196. <https://doi.org/10.1016/j.jbusres.2025.115196>
- Sharma, N., & Fatima, J. (2024). Influence of perceived value on omnichannel usage: Mediating and moderating roles of the omnichannel shopping habit. *Journal of Retailing and Consumer Services*, 77, Article 103627. <https://doi.org/10.1016/j.jretconser.2023.103627>

- Shen, X.-L., Li, Y.-J., Sun, Y., & Wang, N. (2018). Channel integration quality, perceived fluency and omnichannel service usage: The moderating roles of internal and external usage experience. *Decision Support Systems*, 109, 61–73. <https://doi.org/10.1016/j.dss.2018.01.006>
- 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. <https://doi.org/10.1016/j.ijinfomgt.2019.09.001>
- Sundjaja, A. M., Utomo, P., Matthew, D., Helliando, G. R., & Putra, N. S. (2024). The determinant factors of continuance intention to revisit omnichannel retailer companies: Mean-end chain theory approach. *Cogent Business & Management*, 11(1), Article 2332504. <https://doi.org/10.1080/23311975.2024.2332504>
- Tyrväinen, O., Karjaluoto, H., & Saarijärvi, H. (2020). Personalization and hedonic motivation in creating customer experiences and loyalty in omnichannel retail. *Journal of Retailing and Consumer Services*, 57, Article 102233. <https://doi.org/10.1016/j.jretconser.2020.102233>
- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139–153. <https://doi.org/10.1007/BF02894350>
- Yin, C.-C., Chiu, H.-C., Hsieh, Y.-C., & Kuo, C.-Y. (2022). How to retain customers in omnichannel retailing: Considering the roles of brand experience and purchase behavior. *Journal of Retailing and Consumer Services*, 69, Article 103070. <https://doi.org/10.1016/j.jretconser.2022.103070>
- 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. <https://doi.org/10.1016/j.elerap.2018.02.002>
- Zhou, S., & Hudin, N. S. (2025). How does in-store and online shopping experiences influence repurchase intentions in Shandong, China? Roles of perceived value, brand trust, and customer satisfaction. *PLOS ONE*, 20(8), Article e0321485. <https://doi.org/10.1371/journal.pone.0321485>