Investigating the influence of omnichannel retailing on consumer decision making in the Jordanian market

Abdullah Matar Al-Adamat[a*], Atalla Fahed Alserhan[a], Hanan Mohammad Almomani[a], Jafar Ahmad Alserhan[b] and Ahmad Esoud Alkhawaldeh[b]

[a]Department of Business and Public Administration, School of Business, Al al-Bayt University, Jordan
[b]Al al-Bayt University, Jordan

A B S T R A C T

The present research investigates the use of omnichannel retailing and its influence on the Jordanian market, focusing on four important dimensions: integration, fulfilment, usability, and seamlessness. This study attempts to answer how strategies of omnichannel affect purchase-decisions and satisfaction of customers among students at private universities in Jordan as expectations for integrated purchase experiences that combine physical and digital channels continue to rise. Using Structural Equation Modelling (SEM), this study empirically examines the relationships between various dimensions of omnichannel retailing and consumer decision-making. The findings reveal that strong integration across sales channels, fast delivery options, simple interfaces, and seamless transitions significantly enhance consumer decision-making. This underscores the importance of robust infrastructure facilities, dependable information availability options, flexible fulfillment methods, user-friendly interface designs as well as a smooth customer support system which all together make for a great shopping experience. Thus, local retailers are given clear recommendations to invest in current systems by diversifying their delivery alternatives, improving mobile platforms, and using data analytics to match marketing efforts. The main focus of this paper is effective merchandising practices that can help retailers connect with consumers effectively during changing market situations. Moreover, there are several lessons from this research for businesses operating under stiff competition but with the increasing needs of modern-day consumers.

1. Introduction

Consumer choice is important to marketers, and it is a marketing concept that relates to behavioral economics via people's decision-making processes when choosing among various products or services (Penz & Hogg, 2022; Nilashi et al., 2021). This information about customer preferences is vital for businesses since they can tailor their product lines according to these likes and dislikes (Basu et al., 2023). The advent of the Internet and associated innovative technologies has changed consumer choice immensely. Presently, customers have access to lots of information and are affected by online reviews, social media sites as well as e-commerce platforms (Musasa & Moodley, 2020). As per Alsayat (2023), the advancement of artificial intelligence (AI), mobile commerce, and targeted marketing have substantially altered the decision-making behavior of consumers. As consumer favorites expand with novel technological advancements, remaining abreast of these advancements is crucial for successful marketing, making omnichannel retailing necessary for modern retail companies (Yang et al., 2022). Omnichannel retailing is a complex and sophisticated strategy that seeks to offer an unchanging and incorporated purchasing experience among multiple channels (Rodrigues & Coelho, 2021). This concept covers synchronizing multiple sales and communication channels, containing brick-and-mortar stores, online dashboards, social media, and mobile applications, guarantees customers can interact with a brand continually, nonetheless of how or where they shop (Sombultawee &

Wattanatorn, 2022). As per Gao et al. (2022), omnichannel retailing varies from multichannel retailing by incorporating these channels to deliver a seamless and stable practice, covering each aspect of the shopping process, from the discovery of products to purchasing them and after-sales support. Retailers must conduct their shopping practices seamlessly to enhance the satisfaction and loyalty of users (Mishra et al., 2022). Moreover, multichannel consumers spend more than single-channel shoppers (Asmare & Zewdie, 2022). Therefore, incorporating channels can lead to higher average rates of order values as well as conversion. In Jordan, the retail sector is changing as customer behaviors change with the advancements of new innovative technologies. Several Jordanian retailers work in siloed environments despite the international move towards omnichannel trading. This gap between what consumers need and what stores provide because of their inability to employ omnichannel has cost them growth opportunities and a satisfied customer base. Thus, this research explores how Jordanian retailers can apply an omnichannel marketing approach effectively to meet the customer's choices in highly dynamic situations. With conversion to omnichannel retailing, the Jordanian retail sector has a good chance of keeping pace with global trends, meeting customer demands, and becoming more sustainable. This study therefore aims at giving an overall knowledge of the concepts around omnichannel retailing and their professional experience in Jordan. Thus, this research will bridge the gap between consumer needs and capabilities embedded within retail practices thereby contributing towards enhancing Jordan's retail industry through making it vibrant.

2. Review of the literature and research hypotheses

2.1 Omnichannel Retailing

The strategy of omnichannel retail is a thorough approach that incorporates several online and offline sales channels to enhance the shopping experience (Rodrigues & Coelho, 2021; Thaichon et al., 2024). It helps to create a purchasing process whereby consumers can physically purchase goods from a store or buy products online due to the increasingly rich information on the Internet (Asmare & Zewdie, 2022). In addition, Cai and Lo (2020) defined omnichannel retailing as a strategy that enables customers to connect with retailers across numerous channels at the same time, thus enhancing the whole purchasing experience. Furthermore, it is described as the integrated management of several accessible channels and customer touchpoints in a way that increases the customer experience and channel performance (Mishra et al., 2022). According to Gao et al. (2022), omnichannel retailing is the evolution of multichannel shopping, to provide a seamless and unified customer experience across all channels, whether the customer is shopping online from a desktop or mobile device, over the phone, or in a physical store.

The components of omnichannel retail work together to create a unified and enhanced consumer experience. Omnichannel integration indicates the necessity for synchronization and aligning product prices, information, and promotions across all channels to provide a stable shopping experience (Lazaris et al., 2021). Omnichannel utility focuses on the simplicity of how customers can access and use several retail channels. It ensures that users can move between channels and that each channel is straightforward (Hsia et al., 2020). Omnichannel fulfilment efficiently administers and delivers items requested through multiple channels. This factor ensures that clients receive their products quickly, nevertheless, the channel purchases (Yang et al., 2022). Omnichannel seamlessness depends on customers' consistent experience while moving across channels. It ensures that clients do not face discrepancies or disruptions (Thaichon et al., 2024).

2.2 Consumer Decision Making

Consumer decision-making is complex. It can be described as the evaluation of needs, the search for information, the comparison of different options and then making purchases. In this case, consumers' needs are identified and satisfied through information search and comparison before making purchase decisions. As per Sharma et al. (2023), consumer decision-making means a holistic process where buyers identify whether or not to acquire a given item, including realization of the issue, search for information, pre-purchase appraisal of alternatives, purchase transaction itself, and post-purchase behavior. Consumer decision making includes five phases. First, problem recognition occurs when the consumer perceives a discrepancy between the current and desired states, which initiates the decision-making process (Musasa & Moodley, 2020). Second, customers try to find information about items or services that can help them address their problems. The following are sources from which information could be obtained; commercial, experiential, and public. Third, alternative evaluation is conducted by considering many items or brands based on factors such as quality and price features (Tobon et al., 2020). In the fourth phase, the purchasing decision is to choose from the available alternatives of products or services. Many factors can affect the final choice, including alternatives and unanticipated situations (Indiani & Purnami, 2021). Fifth, post-purchase behaviour includes unhappiness, contentment, and cognitive dissonance. This phase can influence future purchases as well as brand loyalty (Ritonga & Ganyang, 2020).

2.3 Omnichannel Retailing in Consumer Decision Making

Omnichannel strategies that allow digital consumer decision-making include having multiple channels for searching, comparing or purchasing, thus bringing together offline and online buying strategies (Penz & Hogg, 2022; Pambudi et al., 2021). This method allows clients to enjoy both the ease of online purchases and the convenience of in-store transaction time. Therefore, omnichannel retailing can facilitate movement through several stages of purchase for better customer satisfaction and loyalty (Özbük et al., 2020). The study also found that retailer attitude, perceived behavioural control, personal norm, and information search have a significant impact on trust intention and purchase intention toward retailers (Sombultawee & Wattanatorn, 2022). Therefore, retailers need to understand the points of view of their customers towards using omnichannels

before implementing them. Whether individuals perceive an omnichannel approach positively relies on how reliable businesses are in integrating credible information across touchpoints and interfaces (Rodrigues & Coelho, 2021). In addition, Liu and Xiong (2023) investigated that there is a strong relationship between the quality of omnichannel integration and customer loyalty. Total client experience is improved through effective integration while also mediating the influence of omnichannel quality on purchase intent, as well as loyalty. This is a highly dynamic process with various cultural implications as different cultures may have their specific expectations and customs related to consumer behaviors in the context of omnichannel commerce (Chen et al., 2021; Ryu et al., 2023). Since it must appeal to a variety of people, the strategies of any multinational company should be designed according to cultural preferences and conventions. In addition, several studies have investigated that omnichannel retail empowers customers by giving them more control over their purchasing practices, which improves satisfaction and favorably impacts intentions to purchase (Mukhopadhyay et al., 2024; Kishor et al., 2023). However, service failures across all channels can have an important effect on consumer intentions, typically causing undesirable opinions and decreased levels of loyalty. To prevent such problems, retailers must ensure that all channels are trusted and continuously provide high-quality service. By doing this, organizations may create a more trusted and pleasant shopping practice, increasing intentions of purchase and patronage. Thus, Fig. 1 shows the study model to explore how omnichannel retailing factors influence consumer decision making.
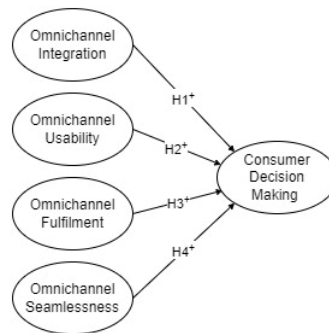

Fig. 1. Conceptual Framework

Depending on the research framework, the collection of hypotheses presented in the research can be expressed as follows:

H$_1$: *Omnichannel integration positively influences consumer decision making.*
H$_2$: *Omnichannel usability positively influences consumer decision making.*
H$_3$: *Omnichannel fulfilment positively influences consumer decision-making.*
H$_4$: *Omnichannel seamlessness positively influences consumer decision making.*

3. Methodology

3.1 Research design

This study used a quantitative method to explore the influence of omnichannel retailing on consumer decision making among students of Jordanian private universities. Quantitative methods provide statistical data analysis and objective measurement, which results in a clear understanding of the relationships between constructs (Arrigo et al., 2023). Furthermore, this study was conducted using a cross-sectional design, which includes collecting data from respondents at a specific time. A cross-sectional design captures students' current views, habits, and practices with omnichannel commerce. On the contrary, it is cost-effective and time-saving, making it suitable for the scope of the current study (Wang & Cheng, 2020).

3.2 Population and sample

The population of this study includes students enrolled in private universities in Jordan. Students are often early users of innovative technologies and presumably interact with several of the retail channels, making them a significant demographic for exploring omnichannel retail. Furthermore, student purchase patterns are influenced by their social networks, academic environment, as well as technology access.

Table 1
Demographic factors of the sample

Factors		Frequency	Percentage	Factors		Frequency	Percentage
Gender	Male	315	54.9%		Science	72	12.6%
	Female	285	45.1%		Engineering	99	17.3%
Age	18-20 years	145	25.3%		Business	178	31.1%
	21-23 years	215	37.5%	Field of Study	Arts	86	15.0%
	24-26 years	126	21.9%		Humanities	78	13.6%
	27-30 years	87	15.3%		Other	60	10.4%

The targeted population was sampled using a convenience sampling approach to obtain a representative sample that enhances the generalizability of the results (Emerson, 2021). According to Bougie and Sekaran (2019), a minimum sample size of 385 students was identified to achieve suitable statistical power and allow valid results. This scale is suitable for detecting significant relationships and simulating complex interactions between constructs. The questionnaire was collected electronically via university email systems, online student portals, and social media platforms associated with Jordanian universities. Of the 615 responses, 42 were incomplete or followed a pattern. After deleting invalid replies, the sample included 573 students. Table 1 shows the results of the demographic analysis of the sample.

3.3 Research Measures

To investigate the influence of omnichannel retailing on consumer decision-making among Jordanian students in private universities, a structured questionnaire was distributed from March 3 to May 11, 2024. The variables related to omnichannel retailing were multidimensional concerning customer's decision-making. Each variable was assessed using validated scales for reliability and validity within the fashion domain. The questionnaires used the Likert scale with responses ranging from 'strongly disagree' to "strongly agree". To measure omnichannel retailing, Asmare and Zewdie (2022) developed a twenty-item scale. Out of these four dimensions, which constitute a second-order construct; omnichannel usability (OU1-OU5), integration (OI1-OI5), fulfilment (OF1-OF5), and seamlessness (OS1-OS5). Meanwhile, based on the first-order structure that Sofi et al. had used to evaluate consumer decision making, a seven-item scale was employed.

3.4 Data Analysis Procedures

Data analysis involved many rigorous processes that provided useful information on how Omnichannel retailing has been influencing student decision-making in private universities with respect to consumption. The descriptive statistics summarize the demographic variables, while the demographic characteristics were further analyzed by frequency and percentage. For each item related to omnichannel shopping and customer decision making presented in table along with standard deviations and means. Based on reliability and validity tests, these measurement instruments are also confirmed as appropriate by Muslihin (2022). The main study used structural equation modelling (SEM) as explained by Collier (2020), to explore possible relationships between retailer factors in an omnichannel environment and consumer variables of consumption. According to the path analysis, direct relationships were identified.

4. Findings

4.1 Measurement model

Table 2 presents the results of the measurement model testing, as well as descriptive data for this research. This entails item factor loadings, composite reliability (CR), Average Variance Extracted (AVE), maximum shared variance (MSV), and standard deviation-mean for every variable.

Table 2
Results of measurement model evaluation and descriptive analysis

Constructs	Items	Loadings	AVE	MSV	√AVE	CR	M	SD
Omnichannel Integration	OI1	0.735	0.546	0.438	0.739	0.857	3.55	0.891
	OI2	0.772						
	OI3	0.703						
	OI4	0.764						
	OI5	0.718						
Omnichannel Usability	OU1	0.783	0.528	0.374	0.726	0.847	3.72	0.874
	OU2	0.634						
	OU3	0.726						
	OU4	0.693						
	OU5	0.785						
Omnichannel Fulfilment	OF1	0.711	0.566	0.403	0.753	0.866	3.64	0.867
	OF2	0.854						
	OF3	0.672						
	OF4	0.776						
	OF5	0.737						
Omnichannel Seamlessness	OS1	0.721	0.555	0.338	0.745	0.861	3.69	0.903
	OS2	0.793						
	OS3	0.802						
	OS4	0.649						
	OS5	0.751						
Decision Making	DM1	0.764	0.572	0.463	0.756	0.903	3.77	0.983
	DM2	0.725						
	DM3	0.734						
	DM4	0.682						
	DM5	0.724						
	DM6	0.814						
	DM7	0.837						

The results of the table demonstrate a robust measurement model with strong validity and reliability across the variables of omnichannel incorporation and decision making among students in Jordanian private universities. The elements of each variable indicate high loadings ranging between 0.634 and 0.854 which are higher than the lowest limit of 0.50 (Shrestha, 2021). AVE values surpassed the 0.5 value, confirming good convergent validity (Santos & Cirillo, 2023). The MSV values are lower than the AVE values, supporting discriminant validity, and the square root of AVE for each variable is higher than the relations with other variables, further approving distinctiveness (Rönkkö & Cho, 2022). Composite reliability (CR) values above 0.8 for all constructs indicate excellent internal consistency according to Kalkbrenner (2023).

4.2 Descriptive statistics

Descriptive data show that students at Jordan's private institutions have largely good attitudes about omnichannel shopping. Respondents strongly believe that omnichannel shopping offers good integration (M= 3.55), usability (M= 3.72), fulfilment (M= 3.64), and seamlessness (M= 3.69). These elements have a beneficial impact on their decision making (M = 3.77). Although there is considerable variation in responses, as evidenced by standard deviations ranging from 0.867 to 0.983, the average mood is positive, emphasizing the importance of omnichannel tactics in shaping consumer behavior. This highlights the need to take into account individual characteristics when implementing and improving omnichannel retailing.

4.3 Structural mode

Structural equation modelling (SEM) is a statistical approach that tests and estimates causal links between latent variables (unobserved constructs) using observable variables (Collier, 2020). It allows researchers to explore intricate relationships between multiple factors at the same time. The goodness-of-fit indices investigate how well the supposed SEM model matches the observed data (Kline, 2023). Fig. 2 represents the SEM results, as well as the goodness of the fit of indicators.
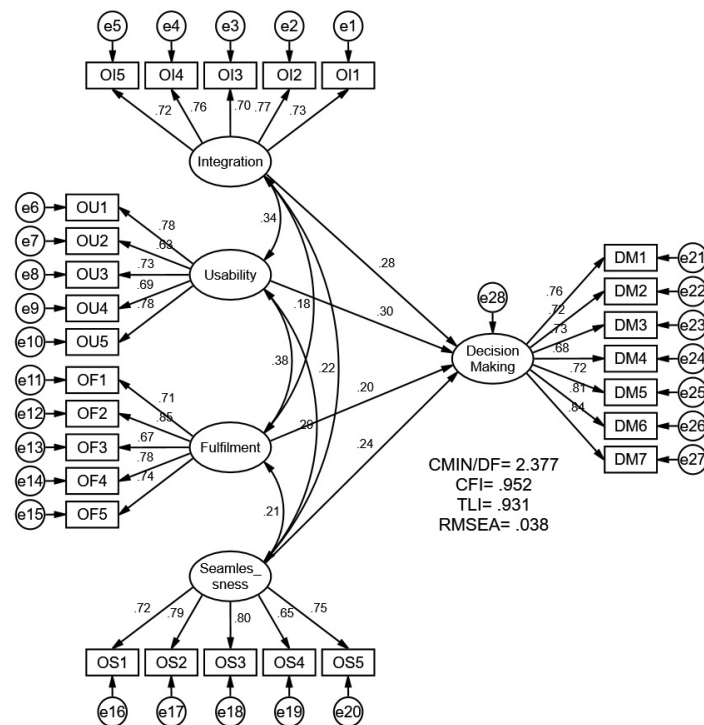

Fig. 2. Results of structural equation modelling and goodness-of-fit indices

The goodness-of-fit indices for the SEM that appeared in Fig. 2 denote a strong fit of the model to the data. The CMIN/DF value of 2.377 is below the cut-off point of 3, supposing a good fit (Pavlov et al., 2020). Both the Comparative Fit Index (CFI) as well as Tucker-Lewis Index (TLI) exceeded the threshold of 0.90, with values of 0.952 and 0.931 respectively, indicating a satisfactory fit (McNeish & Wolf, 2023). Additionally, the root means square error of Approximation (RMSEA) of 0.038 falls well below the cut-off of 0.08, indicating a very good fit of the model to the data (Gao et al., 2020). Table 3 summarizes the results of the path coefficients between omnichannel retailing and consumer decision making. The results of the path analysis, as presented in Table 3, reveal significant positive relationships between various aspects of omnichannel retailing and the decision-making process of consumers in the Jordanian market. Each predictor variable demonstrates a significant effect on decision making, with standardized path coefficients (β) ranging from 0.199 to 0.302. Specifically, higher levels of

Omnichannel Integration (β = 0.276), Usability (β = 0.302), Fulfilment (β = 0.199) and Seamlessness (β = 0.237) are associated with increased propensity for decision-making. These findings underscore the importance of a well-integrated, user-friendly, and seamless omnichannel retail experience to influence consumer decisions.

Table 3
Path Analysis Results

			B	S.E.	β	T
Omnichannel Integration	→	Decision Making	0.297	0.058	0.276	5.12***
Omnichannel Usability	→	Decision Making	0.314	0.060	0.302	5.23***
Omnichannel Fulfilment	→	Decision Making	0.205	0.055	0.199	3.73*
Omnichannel Seamlessness	→	Decision Making	0.248	0.052	0.237	4.77**
Note: * P< 0.05, ** P< 0.01, ** P< 0.001.						

5. Discussion

Omnichannel retailing has the potential to enhance shopper decision-making through providing a well-structured shopping experience (Mukhopadhyay et al., 2024). In addition, the integration process allows customers to start their purchases on one channel and finish them on another without undergoing any hassle or data loss. Price promotions of goods must be consistent among all touchpoints, thus ensuring that buyers can make informed judgments without doubting those offers (Rodrigues & Coelho, 2021). Simple interfaces within every channel enable shoppers to locate what they require in seconds, hence reducing the probability of giving up their plans due to frustration. It also makes it possible for different categories of customers to access multiple customer segments as per their preferences such as everyone having an opportunity to interact with the trader using his preferred way (Mukhopadhyay et al., 2024).

Additionally, on the other hand, there are alternative options for delivery and pickup such as home delivery, store pick-up and drive-thru pick-up that customers can choose from depending on their priority and enhance the chances of making purchases. Moreover, direct product availability via real-time visibility of all channel inventories is determined by zbük et al. (2020) as enabling fast purchasing decisions for customers. Seamless transitions among channels guarantee a smooth shopping experience, keeping the interest of customers high, and minimizing fatigue of decision. As stressed by Ryu et al. (2023), this is because problems are resolved quickly, thereby keeping trust among consumers while acquiring goods and services.

6. Implications

The integration of online and brick-and-mortar sales channels has led to the expansion of Jordan's retail industry. This sector could only grow if companies develop an effective omnichannel strategy that enhances the consumer experience. Tech-savvy consumers are increasingly favoring e-commerce, which is making it hard for traditional retailers to compete with them. The adoption of an omnichannel approach would help these conventional players stay in the market. Jordanian consumers who have had flawless shopping experiences with international brands demand nothing less from local stores. Local brands must meet or surpass these expectations as they strive to keep their loyal customers. In addition to that, the effectiveness of omnichannel commerce relies strongly on the infrastructure of technology. Organizations should invest in reliable technological solutions for seamless incorporation among all channels.

To synchronize all integrations, firms should design robust customer relationship management dashboards in alignment with enterprise resource planning systems. Furthermore, Jordan's high mobile penetration rate, apps, as well as websites must be mobile-friendly and provide a seamless user experience. An ideal example would be making navigational applications that reflect local cultural uniqueness for easy navigation of Makkah in simple navigation plans using Arabic content; establishing curbside pickup points will also help to enhance last-mile logistics such as home delivery or store pickup among other alternatives. Real-time inventory tracking should ensure accurate product availability information across all channels.

7. Conclusion

Consumer decision making processes are improved by omnichannel retail. This also enhances consumers' self-efficacy and trust in their decision making ability, in providing credible information across all channels to facilitate purchase decisions. Omnichannel usability is boosted by user interfaces that can be easily reached which improves navigation and eases shopping for clients. Omnichannel fulfilment has two important dimensions; efficient delivery options and real-time inventory visibility thus enabling customers to attain the flexibility as well as the convenience they require in a rapidly changing retail environment. Finally, seamless integration of omnichannel commerce across customer fields leads to an uninterrupted, fluid purchasing experience that encourages engagement while reducing choice overload. Overall, these dimensions of omnichannel retailing offer a seamless and enhanced purchasing experience. They not only strengthen the direct purchase process but also improve sustainable client happiness and loyalty by enhancing all phases of consumer decision making.

Retailers who successfully implement omnichannel strategies have a greater opportunity to meet the changing demands of modern customers, resulting in increased sales and client retention.

References

Alsayat, A. (2023). Customer decision-making analysis based on big social data using machine learning: a case study of hotels in Mecca. *Neural Computing and Applications, 35*(6), 4701-4722.

Arrigo, A., Aragona, E., Parodi, M. B., & Bandello, F. (2023). Quantitative approaches in multimodal fundus imaging: state-of-the-art and future perspectives. *Progress in Retinal and Eye Research, 92*, 101111.

Asmare, A., & Zewdie, S. (2022). Omnichannel retailing strategy: a systematic review. The International Review of Retail, *Distribution and Consumer Research, 32*(1), 59-79.

Basu, R., Lim, W. M., Kumar, A., & Kumar, S. (2023). Marketing analytics: The bridge between customer psychology and marketing decision-making. *Psychology & Marketing, 40*(12), 2588-2611.

Bougie, R., & Sekaran, U. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons.

Cai, Y. J., & Lo, C. K. (2020). Omni-channel management in the new retailing era: A systematic review and future research agenda. *International Journal of Production Economics, 229*, 107729.

Chen, S., Wright, M. J., Gao, H., Liu, H., & Mather, D. (2021). The effects of brand origin and country-of-manufacture on consumers' institutional perceptions and purchase decision-making. *International Marketing Review, 38*(2), 343-366.

Collier, J. (2020). *Applied structural equation modeling using AMOS: Basic to advanced techniques*. Routledge.

dos Santos, P. M., & Cirillo, M. Â. (2023). Construction of the average variance extracted index for construct validation in structural equation models with adaptive regressions. *Communications in Statistics-Simulation and Computation, 52*(4), 1639-1650.

Emerson, R. W. (2021). Convenience sampling revisited: Embracing its limitations through thoughtful study design. *Journal of Visual Impairment & Blindness, 115*(1), 76-77.

Gao, C., Shi, D., & Maydeu-Olivares, A. (2020). Estimating the maximum likelihood root mean square error of approximation (RMSEA) with non-normal data: A Monte-Carlo study. *Structural Equation Modeling: A Multidisciplinary Journal, 27*(2), 192-201.

Gao, F., Agrawal, V. V., & Cui, S. (2022). The effect of multichannel and omnichannel retailing on physical stores. *Management Science, 68*(2), 809-826.

Hsia, T. L., Wu, J. H., Xu, X., Li, Q., Peng, L., & Robinson, S. (2020). Omnichannel retailing: The role of situational involvement in facilitating consumer experiences. *Information & Management, 57*(8), 103390.

Indiani, N. L. P., & Purnami, N. M. (2021). Modelling Online Purchase Behaviour from Consumer Decision Model Perspective. *Asia Pacific Management and Business Application, 10*(2), 193-210.

Kalkbrenner, M. T. (2023). Alpha, omega, and H internal consistency reliability estimates: Reviewing these options and when to use them. *Counseling Outcome Research and Evaluation, 14*(1), 77-88.

Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford publications.

Kishor, J., Bhardwaj, S. K., & Sharma, S. (2023). An evaluation model for measuring the impact of omnichannel information processing on digital shopping decision. *International Journal of Procurement Management, 17*(2), 255-276.

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.

Liu, J., & Xiong, H. (2023). Information disclosure, consumer returns, and operational costs in omnichannel retailing. *Naval Research Logistics, 70*(4), 376-391.

McNeish, D., & Wolf, M. G. (2023). Dynamic fit index cutoffs for confirmatory factor analysis models. *Psychological Methods, 28*(1), 61.

Mishra, S., Malhotra, G., Arora, V., & Mukhopadhyay, S. (2022). Omnichannel retailing: does it empower consumers and influence patronage?. *International Journal of Retail & Distribution Management, 50*(2), 229-250.

Mukhopadhyay, S., Chauhan, S., & Mishra, S. (2024). Consumer patronage in omnichannel retailing and the moderating impact of culture: a MetaSEM review. *Journal of Strategic Marketing, 32*(3), 374-390.

Musasa, T., & Moodley, P. (2020). The Roles of Psychological Antecedents and Consumer Innovativeness in Determining Consumer Decision Making Styles of South African Millennial Consumers. *Eurasian Journal of Business and Management, 8*(4), 348-368.

Muslihin, H. Y., Suryana, D., Suherman, U., & Dahlan, T. H. (2022). Analysis of the Reliability and Validity of the Self-Determination Questionnaire Using Rasch Model. *International Journal of Instruction, 15*(2), 207-222.

Nilashi, M., Minaei-Bidgoli, B., Alrizq, M., Alghamdi, A., Alsulami, A. A., Samad, S., & Mohd, S. (2021). An analytical approach for big social data analysis for customer decision-making in eco-friendly hotels. *Expert Systems with Applications, 186*, 115722.

Özbük, R. M. Y., Ünal, D. A., & Oktay, B. (2020). Consumer behaviour in omnichannel retailing. In *Managing Customer Experiences in an Omnichannel World: Melody of Online and Offline Environments in the Customer Journey* (pp. 75-95). Emerald Publishing Limited.

Pambudi, A. P., Masnita, Y., & Kurniawati, K. (2022). The Impact of Omnichannel Retail on Customer Patronage Intentions: The Role of Consumer Empowerment, Service Failure, and Customer Satisfaction. *Jurnal Akuntansi, Manajemen dan Ekonomi, 24*(4), 21-33.

Pavlov, G., Shi, D., & Maydeu-Olivares, A. (2020). Chi-square difference tests for comparing nested models: An evaluation with non-normal data. *Structural Equation Modeling: A Multidisciplinary Journal, 27*(6), 908-917.

Penz, E., & Hogg, M. K. (2022). *Consumer Decision Making in Omnichannel Environments*. In The Routledge Handbook of Digital Consumption, 297-308.

Ritonga, W., & Ganyang, M. T. (2020). The dynamic of consumer behaviour, consumer decision, consumer satisfaction on consumer loyality on sipirock coffee jakarta. *Archives of Business Research, 7*(12), 332-340.

Rodrigues, F. S., & Coelho, A. I. (2021). Omnichannel in FMCG: Digitally enhancing retail consumer journey. In *Marketing and Smart Technologies: Proceedings of ICMarkTech 2020* (pp. 375-388). Springer Singapore.

Rönkkö, M., & Cho, E. (2022). An updated guideline for assessing discriminant validity. *Organizational Research Methods, 25*(1), 6-14.

Ryu, J. S., Fortenberry, S., & Warrington, P. (2023). Understanding omnichannel shopping behaviours: Incorporating channel integration into the theory of reasoned action. *Journal of Consumer Sciences, 8*(1), 15-26.

Sharma, P., Ueno, A., Dennis, C., & Turan, C. P. (2023). Emerging digital technologies and consumer decision-making in retail sector: Towards an integrative conceptual framework. *Computers in Human Behaviour, 148*, 107913.

Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics, 9*(1), 4-11.

Sofi, S. A., Mir, F. A., & Baba, M. M. (2020). Cognition and affect in consumer decision making: conceptualization and validation of added constructs in modified instrument. *Future Business Journal, 6*, 1-20.

Sombultawee, K., & Wattanatorn, W. (2022). The impact of trust on purchase intention through omnichannel retailing. *Journal of Advances in Management Research, 19*(4), 513-532.

Thaichon, P., Quach, S., Barari, M., & Nguyen, M. (2024). Exploring the role of omnichannel retailing technologies: Future research directions. *Australasian Marketing Journal, 32*(2), 162-177.

Tobon, S., Ruiz-Alba, J. L., & García-Madariaga, J. (2020). Gamification and online consumer decisions: Is the game over?. *Decision Support Systems, 128*, 113167.

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: strengths, weaknesses, and recommendations. *Chest, 158*(1), S65-S71.

Yang, L., Li, X., & Zhong, N. (2022). Omnichannel retail operations with mixed fulfillment strategies. *International Journal of Production Economics, 254*, 108608.