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From traditional to transformed: Examining the pre- and post-COVID consumers' shopping mall experiences

Gary Mortimer^{a,*}, María Lucila Osorio Andrade^b, Syed Muhammad Fazal-e-Hasan^c

^a QUT Business School, Queensland University of Technology, 2 George Street, PO Box 2434, Brisbane, Queensland, 4001, Australia

^b EGADE Business School, Tecnológico de Monterrey, Rufino Tamayo y Av. Eugenio Garza Lagüera, San Pedro Garza García, N.L, 66269, Mexico

^c Peter Faber Business School, Australian Catholic University, North Sydney, New South Wales, 2060, Australia

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ABSTRACT

Recently published exploratory research has suggested COVID-19 control protocols implemented during the pandemic may have altered the values and experiences customers seek within shopping malls. We refer to this as a shift from 'traditional' to 'transformed'. This current study responds directly to calls for a deeper understanding of changes in post-pandemic consumer behaviour. Data were collected from shoppers via an online survey in two stages – pre-COVID (n = 356) and post-COVID (n = 367). Structural Equation Modelling (SEM) was employed to test the developed hypotheses, with the key objective to determine if the relationships between the variables have changed. Path invariance was tested using the structural invariance technique, finding the model differed between pre-COVID and post-COVID time points. Results indicate in a post-COVID era, utilitarian and transactional value have a stronger influence on customer's functional experience, leading to revisit intentions, whereas hedonic and social interaction value, have a weaker influence on the customer's social experience within shopping malls. Contributions to knowledge and practice are offered.

1. Introduction

Prior to the pandemic, the shopping mall was an essential vehicle for consumption across developed economies. Customers traditionally sought a range of values, which lead to positive experiences, encouraging revisit intentions. However, emerging research is now finding COVID-19 control measures implemented during the pandemic may have impacted on the value customers seek, and their experiences, when visiting a shopping mall (Gordon-Wilson, 2022; Sorrentino et al., 2022; Verhoef et al., 2023). We refer to this as a shift from 'traditional' to 'transformed'. Specifically, Gupta and Mukherjee (2022) exploration of possible long term changes on customer behaviour suggest such transformation resulted from their consumption experiences during the pandemic. Customers who approached their shopping experiences positively during the pandemic, demonstrated increased pro-sustainable self-identity, more sustainable consumption, and a shift toward online shopping. Whereas negative experiences heightened customer's fear, loss aversion, and herd shopping behaviour. In addressing the limitations of their exploratory work, Gupta and Mukherjee (2022) explicitly called for a quantitative study that employs sophisticated statistical analysis, additional social factors and a broader retail context inclusive of shopping malls. Accordingly, the aim of this current research is to respond directly to these calls, addressing the research question; how has the pandemic changed the shopping mall experience for customers?

As a result of deteriorating global economic conditions, the maturing of the shopping mall format, and increasing competition from e-commerce retailers, malls are increasingly facing macro-environmental challenges (Calvo-Porral and Lévy-Mangin, 2019). Researchers have suggested that the pandemic may have changed the value and experiences customers seek when shopping in this retail channel (Sheth, 2020; Kumar, 2021). For example, customers' fears regarding their health may be heightened by a concern of being in crowded spaces (Rosenbaum and Russell-Bennett, 2020), with others suggesting that COVID-19 could mark the end of local brick-and-mortar shops (Beckers et al., 2021). As customers are becoming more value-conscious due to the scarcity of time and economic resources, it is vital for managers and researchers to identify shifts in customer perceptions of value and experiences post-COVID.

During the pandemic, governments around the world imposed mandatory COVID control protocols, such as QR check-in requirements, contact tracing, proof of vaccination, face masks, sneeze screens, and social-distancing measures (Kang et al., 2020; Kim and Han, 2022).

* Corresponding author.

E-mail address: gary.mortimer@qut.edu.au (G. Mortimer).

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These same government-mandated controls were implemented in Australia; therefore Australia serves as an appropriate proxy to examine shifts in shopping mall customer behaviours. In Australia, the temporary closure of all 'non-essential' activities, including retailing, hospitality, and personal services, was announced on March 23, 2020 (Storen and Corrigan, 2020). Other than supermarkets, convenience stores, and pharmacies, all other retail businesses were forced to close. Australia began to lift restrictions on 'non-essential' retailing activities in October 2021 for vaccinated residents (Blake, 2021), while maintaining government-mandated controls. While research has speculated that the pandemic and such measures had transformed the behaviour of customers in shopping malls (Gupta and Mukherjee, 2022; Verhoef et al., 2023), the objective of this current research is to compare perceived shopping mall values (utilitarian, time-convenience, transactional, hedonic, social), with consumer experiences (functional, social) and revisit intention, before and after COVID-19.

This research makes several contributions. Firstly, this is the first study to compare perceived shopping mall value and consumer experience prior to, and then after, the lifting of all COVID-19 restrictions. Findings reveal important asymmetries between the pre-COVID and the post-COVID samples. Secondly, this current work applies and extends Person-Environment (PE) theory within a consumption setting as a framework to examine incongruence in the customer experience between the pre-COVID and post-COVID period. By adopting a comparative perspective, a better understanding of customer' past and current perceived value of, and experience with, shopping malls is offered. Finally, to increase the robustness and generalizability of the mall value (MallVal) scale (El-Adly and Eid, 2015) and overcome potential cultural biases, the MallVal scale was re-tested within a non-middle-eastern country, Australia. Managerial implications, as well as future research directions are provided.

2. Theoretical background

Person-Environment (PE) congruence theory (Holland, 1959) provides an appropriate theoretical background to examine the proposed conceptual model. While this theory was originally conceptualized in the domain of organizational behaviour, its principles can be extended to customer behaviour. Congruence refers to the existence of a good fit, or correspondence, between one's needs and preferences with a given situation (Tinsley, 2000). PE theory posits that individuals have an intrinsic need to fit their environments and to seek out environments compatible with their own characteristics and values (Van Vianen, 2018). This desire to 'fit in' derives from an innate preference towards consistency, combined with a natural wish to exert control over one's life, and reduce uncertainty (Yu, 2013).

PE theory holds three main principles. First, examining the 'person' and the 'environment' together are better predictors of future behaviour. For example, examining customer behaviour in a traditional congruent setting (pre-COVID), and comparing those behaviours within a transformed incongruent setting (post-COVID), enables the identification of behavioural shifts and predicted future behaviour. Second, behavioural outcomes are most optimal when the individual's 'attributes' and the environment's 'attributes' are compatible. Simply, customers attain value and positive experiences when the shopping mall's offers are congruent with their needs. In contrast, when change occurs and the 'fit' becomes incongruent, less optimal outcomes result for both parties. Third, 'discrepancies' between the individual and environmental attributes reduce positive outcomes regardless of the discrepancy direction. That is, a surplus of undesired shopping mall attributes is as bad as a lack of desired shopping mall attributes (Van Vianen, 2018). Accordingly, PE congruence represents a reliable approach to understanding the impact of shifts in the retail environment (shopping mall) on individuals' (customers') experiences, value and revisit intentions. This current research investigates whether customers' perceived value and experiences in shopping malls prior to the pandemic (congruent), have changed post-pandemic (incongruent). That is, the introduction of COVID-19 control protocols (frictionless transactions, click and collect), coupled with the swift adoption of omnichannel strategies and health concerns (crowding, outbreaks), have resulted in a shift in the mall's previously congruent and familiar shopping experience to an incongruent and unfamiliar one.

3. Literature review and hypotheses

Despite the pandemic ending and COVID-19 restriction protocols being lifted, to the best of the authors knowledge, there have been no empirical studies specifically examining shifts in buying and consumption patterns, affecting general retail environments, and particularly shopping malls. Much of the emergent work has rested on qualitative predictions of possible long term changes to consumer behaviour, consumption experiences or adaptive businesses (Gupta and Mukherjee, 2022; Verhoef et al., 2023; Rosenbaum and Russell-Bennett, 2020; Beckers et al., 2021; Raturi, 2022). This dearth of knowledge is odd considering the important role evolving consumer behaviours has on various aspects of life, such as work, shopping, and entertainment, that carry significant implications for shopping malls (Verhoef et al., 2023). Consequently, this study constitutes the first empirical examination of the potential structural impact of the pandemic on shopping behaviour within the context of shopping malls. This objective is achieved through a comparative analysis of the values and experiences sought by customers within shopping malls before and after the pandemic. These comparisons unveil substantial shifts that fundamentally redefine the perceived value associated with mall environments and its connection to customers' intentions to revisit these spaces.

Perceived value is a multidimensional construct comprising utilitarian, time convenience, transactional, hedonic (Jones et al., 2006; Lloyd et al., 2014), and social interaction elements (Srivastava and Kaul, 2014). While multiple academic definitions of value exist, all concur that perceived value refers to customers' overall assessment of the utility of a product or service, based on perceptions of what is received and what is given. Perceived value is relevant because it predicts customers' choice and repurchase intentions which are paramount for achieving sustainable competitive advantages and consumer loyalty (Chen et al., 2013; Ameen et al., 2021). Understanding these elements is vital for understanding the customer experience within a shopping mall. The customer experience is central to marketing scholarship because meaningful customer experiences are antecedents of customer satisfaction, which is essential to achieving competitive advantages (Verhoef et al., 2009). Customer experience is a subjective internal response to and interaction with the retail environment (Lemon and Verhoef, 2016). As a specific type of consumption space, the shopping mall customer experience aggregates both functional and social components (Ruiz et al., 2004). The functional experience provides customers with ways that satisfy their need for efficiently and effectively (Grewal and Roggeveen, 2020). For example, access to a broad range of retail brands in one location, car parking, click-and-collect areas, or access to various payment options. In addition, customer experiences have a social element, in which the experience provides opportunities to interact, socialise, or be entertained (Kim et al., 2005; Mahmud et al., 2023).

Customer revisit intention is the likelihood that customers will reconnect or re-engage with the place of consumption (Arnold and Reynolds, 2003; Hunter, 2006). With an increased adoption of online shopping, make this construct very relevant to this current study (Sharma and Batra, 2016). The globalisation of brands, retailers and service providers have led to a homogenous shopping experience across the mall industry (Leischnig et al., 2011). This homogenous experience has reduced malls' competitive advantage, resulting in customers having a reduced preference for one mall compared to others. Hence, understanding a customers' perceived value in their shopping experience at a shopping mall may inform strategies to increase revisit intention (Rosenbaum et al., 2016).

3.1. Utilitarian value

Utilitarian value is defined as that value that a customer receives based on a task-related and rational consumption behaviour (Babin et al., 1994). Shopping mall managers seek to increase customer utilitarian value by adding more retailers and service providers (Carlson et al., 2015), anchor stores, carparks and facilities (Simona Damian et al., 2011). Prior to the pandemic, the relationship between customer utilitarian value and functional experience had been established (Calvo-Porral and Lévy-Mangin, 2019; Kesari and Atulkar, 2016). While this relationship is predicted to remain significant, it is argued as a result of the COVID-19 mitigation protocols implemented, incongruency has emerged, and this relationship will vary between the Pre-COVID and Post-COVID samples. Therefore, it is predicted:

H1. The significant positive relationship between the consumers' utilitarian value and their functional experience will be variant across the Pre-COVID and Post-COVID groups.

3.2. Time convenience value

Time convenience value is defined as the efficiency in the shopping process, which expedites shopping tasks in the mall (Reimers and Clulow, 2009). Shopping malls have traditionally promoted this value proposition, i.e., many brands all under one roof, undercover carparking. Achieving these tasks efficiently increases intention to revisit the mall (Benhamza Nsairi, 2012). However, the implementation of COVID-19 mitigation protocols (requirement to check in, show proof of vaccination) and residual post-COVID initiatives, like downloading QR ordering apps and sneeze screens, may have transformed this value proporsition for customers, impacting on their functional experience. While the time convenience value and functional experience has been previously established prior to COVID-19 (Kesari and Atulkar, 2016), it is predicted, while this relationship will remain significant, it will vary between the Pre-COVID and Post-COVID samples. As such, it is predicted:

H2. The significant positive relationship between the customers' time/ convenience value and their functional experience will be variant across the Pre-COVID and Post-COVID groups.

3.3. Transaction value

Transaction value does not just relate to the monetary value customers perceive but the sense of satisfaction relating to the product acquisition purchase process (Arndt et al., 2011). Transaction value is determined by the mall's capacity to offer multiple payment methods, attractive prices and promotions which results from competing retailers and service providers. The presence of a broad range of retail offers, product and services within the mall creates transaction value for customers (Calvo-Porral and Lévy-Mangin, 2019). However, fluctuating economic conditions and the shift on online channels offering more choice and lower prices during the pandemic (Shaw et al., 2022), may have impacted customer transaction value post COVID-19. While prior to the pandemic the relationship between customer transaction value and functional experience had been established, it is predicted as a result of mitigation protocols and a shift to online channels, this relationship will vary between the Pre-COVID and Post-COVID samples.

H3. The significant positive relationship between the customers' transaction value and their functional experience will be variant across the Pre-COVID and Post-COVID groups.

3.4. Hedonic value

Hedonic value is defined as the fun and playfulness that consumers attain when shopping within a mall (Babin et al., 1994). Customers

seeking hedonic value are more responsive to atmospheric elements in the mall, reinforcing the emotional appeal of the mall (O'Donnell et al., 2016; Allard et al., 2009). Among various attributes associated with shopping malls, atmospherics and entertainment have been identified as key factors that significantly contribute to the creation of positive emotions, such as pleasure and enjoyment (Singh and Sahay, 2012). This, in turn, enhances the social aspects of a mall (Pecoraro and Uusitalo, 2014). However logically, mitigation protocols implemented during COVID-19, many of which remain in place today may impact negatively on this element of value. Thus, while the relationship between customer hedonic value and social experience had been established prior to COVID-19 (Srivastava and Kaul, 2014), it is predicted as a result of mitigation protocols discussed above, this relationship will vary between the Pre-COVID and Post-COVID samples. Accordingly, we hypothesise:

H4. The significant positive relationship between the customers' hedonic value and their social experience will be variant across the Pre-COVID and Post-COVID groups.

3.5. Social interaction value

Social interaction value is defined as the process by which people act and react in relation to each other (Park and Kim, 2023). Over time shopping malls have evolved to become social places for the community (Kim et al., 2005). Customers who perceive the mall as an interactive social destination seek to attain social interaction value (Srivastava & Kumar, 2014). It has been previously established social interaction value in a mall increases the customers' intention to stay longer (Davis and Hodges, 2012), providing a positive overall social experience through direct interactions between customers and other actors involved in the experience, such as employees and other customers (Bustamante and Rubio, 2017). However, while frequent outbreaks of COVID-19 continue, it is reasonable that customers' fears regarding their health, and concerns of being in crowded spaces (Rosenbaum and Russell-Bennett, 2020), will negatively impact on this perceived value. Hence, despite the relationship between customer social interaction value and social experience had been established prior to COVID-19 (Bustamante and Rubio, 2017), it is predicted as a result of ongoing outbreaks and concerns about crowding and health risks, this relationship will vary between the Pre-COVID and Post-COVID samples. Thus, we hypothesise:

H5. The significant positive relationship between the customers' social interaction value and their social experience will be variant across the Pre-COVID and Post-COVID groups.

3.6. Functional and social experience and revisit intentions

Functional experience is the degree to which a mall successfully satisfies customers' shopping tasks and desires efficiently and effectively, which results in intentions to revisit (Grewal and Roggeveen, 2020). Multiple elements such as a variety of retailers and service providers, visibility of entrances and exits, clear signage, and spacious common areas create a functional shopping experience (Singh and Sahay, 2012). Malls that deliver functional experiences drive more customer satisfaction and revisit intention (El Hedhli et al., 2017). In contrast to functional experience, a customer's social experience is the degree to which a mall can successfully satisfy the socializing motives of the customers (Kim et al., 2005; Srivastava and Kaul, 2014). As discussed, entertainment, atmospherics and ambiance create a sense of excitement for shoppers which increases their social experience (Pecoraro and Uusitalo, 2014; Popa and Barna, 2013). For this reason, the social experience positively impacts customers' footfall and revisit intention (Gilboa et al., 2016). However, as proffered above, residual COVID-19 mitigation protocols, the shift to online channels, ongoing outbreaks and health concerns, the relationships between functional and

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social experiences and revisit intention may have shifted (Omar et al., 2021; Truong and Truong, 2022). Accordingly, while these relationships had been previously established prior to COVID-19, it is predicted these relationships will vary between the Pre-COVID and Post-COVID samples. Thus, it is hypothesised:

H6. The significant positive relationship between the customers' functional experience and their intention to revisit will be variant across the Pre-COVID and Post-COVID groups.

H7. The significant positive relationship between the customers' social experience and their intention to revisit will be variant across the Pre-COVID and Post-COVID groups.

Based on the discussion above, the proposed conceptual model is presented below (Fig. 1).

4. Method

A research service provider was employed to access appropriate samples. Data were collected in two stages. Stage One involved an online survey, administered to participants in October 2019, approximately three months before the first reported case of COVID-19 in Australia. Stage Two re-applied the same online survey to participants in October 2022, approximately eight months after all restrictions on non-essential retailing were lifted. A twelve-month window between 'lifting of restrictions' (Oct 2021) and 'data collection' (Oct 2022) was deemed appropriate, as government-mandated restrictions were 'progressively' wound back across states and territories at different stages. At the time of the final collection, all COVID-19 restrictions have been fully lifted for both vaccinated and unvaccinated consumers, but residual physical controls remained, like 'Click and Collect' shopping, QR code ordering apps, sneeze screens, social distancing barriers. Further, the 12 month window also provided greater confidence that previous restrictions and government-mandated health controls had continued to transform the value and experiences associated with shopping malls, long after such protocols had been relaxed.

Previously validated scales were used to measure utilitarian, time/ convenience, transactional, hedonic, and social interaction value (MallVals) (El-Adly and Eid, 2015); functional and social experience (Gilboa, et al., 2016); and mall revisit intentions (Rabbanee et al., 2012). Integrity controls were implemented for both surveys (randomisation of items, two integrity checks, screening questions, and a duration check). Participants were screened to ensure they regularly visited a shopping mall 'pre-COVID' and 'post-COVID'. Participants were required to name their local shopping mall, and further asked specific questions relating to time spent shopping, frequency of visit, length of stay, and average expenditure. Participants who failed either or both integrity-check items, completed the survey too quickly, or responded to items consistently across the entire survey were removed. A final sample of N = 356(pre-COVID) and N = 367 (post-COVID) were attained.

5. Analysis and results

Structural Equation Modelling (SEM) was employed to test the developed hypotheses using the AMOS software. The key objective of this research was to determine the impact of COVID-19 on perceived shopping mall value, consumer experience, and revisit intentions. As such, we predicted the hypothesised model would differ across pre-COVID and post-COVID samples. A summary of the sample characteristics is illustrated in Table 1.

Common method bias (CMB) was controlled in several ways. First, Harman's single-factor test was employed as a post-hoc test, with results indicating the variance extracted by the first factor accounted for only 38.9% (Pre-COVID) and 37.9 (Post-COVID) of the variance, mitigating CMB (Podsakoff et al., 2003). As Harman's single-factor approach can produce false positives (Fuller et al., 2016), items were randomised and responses were mixed between 'strongly disagree/strongly agree' and 'very unimportant/very important' (Sadiq et al., 2021). No significant χ^2 change between the baseline model and the constrained models or between the restricted models and the constrained/unconstrained models were identified (see Table 5 below); therefore, CMB was not present. To

Table 1	
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Demographic Features	Items	Pre- COVID (N = 356)	Percent	Post- COVID (N = 367)	Percent
Gender	Male	171	39.5%	161	43.9%
	Female	183	59.8%	205	55.9%
	Other	2	0.7%	1	0.2%
Age (Years)	18–35	89	29.1%	85	23.2%
	36–55	134	43.8%	128	34.8%
	55+	83	27.1%	154	42.0%
The income per	Less than	57	18.6%	86	23.4%
year before tax	\$30,000				
*Australian	\$30,000-	50	16.3%	78	21.3%
dollars	less than				
	\$50,000				
	\$50,001-	104	34.0%	101	27.5%
	less than				
	\$100,000				
	\$100,000 +	71	23.2%	63	17.2%
	Prefer not to	24	7.8%	39	10.6%
	say				
Length of stay per	Less than 1	150	49.0%	142	38.7%
visit	h				
	1–2 h	120	39.2%	152	41.4%
	2–3 h	25	8.2%	51	13.9%
	More than 3	11	3.6%	22	6.0%
	h				
Average	\$1-\$10	6	2.0%	4	1.1%
expenditure per	\$11-\$20	18	5.9%	29	7.9%
visit	\$21-\$50	88	28.8%	109	29.7%
	\$50 +	194	63.4%	225	61.3%



Fig. 1. Proposed conceptual framework.

ensure the data was free from social desirability, an information sheet was provided to all participants ensuring anonymity and confirming no right or wrong answers to the questions asked.

5.1. Measurement model (CFA)

To test the measurement model, common factor analysis using covariance-based structural equation modelling was undertaken. The model fit indices of the measurement model are good as all the values are in recommended range (Hu and Bentler, 1999). Further, to ensure the model's reliability, we test Cronbach's alpha and composite reliability. Table 2 indicates that all the factors have reliability values greater than 0.60, which indicates that the data is reliable (Hair et al., 2013).

This study tested instrument validity in two ways. First, the average variance extracted (AVE) value of each construct in both situations (pre-COVID and post-COVID) convergent validity is above 0.50. Therefore, convergent validity was established. Next, it was confirmed each variable's square root of AVE is greater than the correlation between the variables. Therefore, discriminant validity was established (See Table 3).

5.2. Structural model

The proposed hypotheses were tested using AMOS. The model fit indices of the structural model are in the acceptable range (Hu and

Table 2

CFA (F	Pre-COVID	vs. Po	st-COVID).
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Construct	Estimate (PrC)	Estimate (PoC)	Cron. Alpha (PrC/PoC)	CR (PrC/ PoC)	AVE (PrC/ PoC)
Utility 1	0.807	0.768	0.917/0.859	0.914/ 0.865	0.728/ 0.618
Utility 2	0.762	0.688			
Utility 3	0.933	0.843			
Utility 4	0.916	0.835			
Time 1	0.884	0.811	0.851/0.758	0.863/ 0.797	0.683/ 0.587
Time 2	0.922	0.950			
Time 3	0.645	0.447			
Trans 1	0.867	0.729	0.885/0.660	0.893/	0.736/
				0.700	0.440
Trans 2	0.903	0.529			
Trans 3	0.800	0.703			
Hedo 1	0.902	0.924	0.907/0.924	0.909/	0.769/
				0.927	0.809
Hedo 2	0.885	0.950			
Hedo 3	0.843	0.819			
Soc 1	0.876	0.830	0.730/0.929	0.928/	0.811/
				0.932	0.822
Soc 2	0.931	0.941			
Soc 3	0.894	0.944			
Funct 1	0.593	0.552	0.701/0.749	0.723/	0.576/
				0.787	0.565
Funct 2	0.837	0.957			
Funct 3	0.697	0.689			
SocEx 1	0.888	0.817	0.774/0.818	0.773/	0.538/
				0.821	0.604
SocEx 2	0.657	0.779			
SocEx 3	0.627	0.734			
ReVis 1	0.796	0.747	0.738/0.747	0.768/ 0.777	0.538/ 0.543
ReVis 2	0.862	0.849			
ReVis 3	0.486	0.591			

PrC: ($\chi 2 = 1533.915 \text{ df} = 494$, $\chi 2/\text{df} = 3.105$, (p < 0.01), CFI = 0.908, IFI = 0.909, and RMSEA = 0.056), CR = Composite reliability, AVE = Average variance extracted, PrC= Pre-COVID, PoC= PoC-COVID, Utility = Utilitarian value; Time = Time convenience value; Trans = Transaction value; Hedo = Hedonic value; Soc = Social interaction value; Funct = Functional experience; SocEx = Social experience; ReVis = Revisit intention.

Bentler, 1999). Table 4 indicates that despite variation in the strength of the hypothesised relationships, each remained statistically significant across pre-COVID and post-COVID samples. While this is not surprising, considering these relationships had been previously established in the literature, the contribution of this new research was to determine whether any of these relationships differed (varied) or remained unchanged (invariant) across these two collection points (pre-COVID and post-COVID).

5.3. Group moderation (pre-COVID vs. post-COVID)

As this study collected data in two stages, path invariance was tested using the structural invariance technique. The result reflects that χ^2 difference between fully constrained and unconstrained models ($\Delta \chi^2/df$ = (1792.17/516) - (1820.727/523) = 28.557/7; p = 0.000), thus the model is variant in both the situations (see Table 5). Further, to get a new χ^2 , we applied constraints on each proposed hypothesis. Table 6 indicates that if the given χ^2 at a 95% confidence interval (i.e., 1796.01) is lesser than the observed χ^2 , the given path is invariant (remains statistically unchanged). The results indicate that the relationships between utility value (χ^2 (517) = 1799.532 > 1796.01) and transactional value (χ^2 (517) = 1797.681 > 1796.01) and functional experience (pre-COVID vs post-COVID) significantly differed (variant). As such H1 and H3 are accepted, while H2 was rejected. Similarly, relationships between hedonic value (χ^2 (517) = 1798.295 > 1796.01) and social interaction value (χ^2 (517) = 1805.687 > 1796.01) also significantly differed (variant). Accordingly, H4 and H5 are accepted. Finally, the relationship between social experience and revisit intention (χ^2 (517) = 1801.060 > 1796.01) significantly differed (variant) (pre-COVID vs post-COVID). Thus, H7 was accepted, while H6 was rejected.

6. Discussion

The key aim of this current research was to identify how the pandemic has transformed the values sought and accordingly the shopping mall experience for customers, impacting on their revisit intentions. The resulting examination through the lens of PE theory, offers interesting findings that indicate a shift in customer behaviour between two time points. As expected, within both the Pre-COVID and Post-COVID samples, all hypothesised relationships were found to be statistically significant. However, the key contribution of this work rests in identifying the variances between the two time points, which reveal important asymmetries.

The structural invariance analysis indicates significant differences between the Pre-COVID and Post-COVID models, for five of the seven hypothesised relationships. While utilitarian value continued to positively influence the customer's functional experience in both time points, it now exerts a stronger influence in a Post-COVID period. This stronger relationship is explained by emerging post-pandemic research that suggests a pent up demand to return to the physical retail environment (Raturi, 2022; Verhoef et al., 2023). That is, as COVID-19 mitigation controls were relaxed, and retail businesses reopened, customers attained greater utility and functional experiences from the range of stores and services offered by the shopping mall, rather than waiting for online purchases to be delivered. Similarly, the transactional value customers sought within shopping malls influenced their functional experience in both pre and post pandemic situations, although again, the influence is much stronger in the Post-COVID time point. This stronger influence of transactional value on a customer's functional experience suggests customers have grown accustomed to 'frictionless', 'contactless' and 'biometric' payment methods implement during the pandemic, and which remain in place today (Liébana-Cabanillas et al., 2022; Quinones et al., 2022). The ease of transacting, while reducing the risk of contracting COVID-19, appears to have strengthened this relationship. Surprisingly, the relationship between time convenience value and functional value, across both time points, remained invariant

Table 3

Descriptive and correlation analysis (Pre-COVID/Post-COVID).

1										
Construct	Mean	SD	1	2	3	4	5	6	7	8
Utilitarian Value	5.57/5.44	1.24/0.89	(0.85/0.79)							
Time Convenience Value	5.26/5.03	1.33/1.01	0.59/0.55	(0.83/0.77)						
Transaction Value	5.13/4.68	1.45/0.98	0.73/0.76	0.50/0.52	(0.86/0.76)					
Hedonic Value	4.66/4.13	1.54/1.38	0.68/0.59	0.66/0.51	0.82/0.83	(0.88/0.90)				
Social Interaction Value	3.74/2.94	1.87/1.65	0.55/0.51	0.50/0.59	0.51/0.54	0.63/0.61	(0.90/0.91)			
Functional Experience	4.79/5.15	1.32/1.18	0.58/0.56	0.64/0.66	0.54/0.67	0.34/0.39	0.62/0.62	(0.69/0.75)		
Social Experience	4.24/3.62	1.41/1.42	0.66/0.59	0.67/0.66	0.79/0.67	0.57/0.62	0.50/0.69	0.65/0.78	(0.73/0.78)	
Revisit Intention	5.32/5.19	1.19/0.96	0.61/0.60	0.50/0.53	0.69/0.66	0.84/0.66	0.70/0.57	0.66/0.54	0.64/0.52	(0.73/0.74)

(N = 356/367), All values are significant at p < 0.01, Square root of AVE is shown in parentheses, where SD = Standard deviation.

Table 4

Path Analysis (Pre-COVID vs. Post-COVID).

Hypothesis	Estimates- Pre-COVID	P-Value- Pre- COVID	Estimates- Post-COVID	P-Value- Post- COVID
Utilitarian value → Functional experience (H1)	0.094	0.004	0.311	0.003
Time convenience Value \rightarrow Functional experience (H2)	0.257	0.004	0.180	0.013
Transaction value → Functional experience (H3)	0.347	0.002	0.732	0.000
Hedonic value \rightarrow Social experience (H4)	0.605	0.000	0.409	0.000
Social interaction value \rightarrow Social experience (H5)	0.437	0.048	0.145	0.000
Functional experience → Revisit intention (H6)	0.093	0.011	0.146	0.007
Social experience →Revisit intention (H7)	0.725	0.000	0.554	0.000

 $PrC:(\chi 2=1792.170~df=516,~\chi 2/df=3.473,~(p<0.01),~CFI=0.887,~IFI=0.888$ and RMSEA = 0.061).

Table 5

Path invariance (Pre-COVID vs Post-COVID).

Model	χ^2	Df	$\Delta \chi^2$	∆df	p-value
Unconstrained Fully constrained	1792.17 1820.727	516 523	28.557	7	0.000

 $\chi^2=1796.01;\,df=517$ at 95% confidence interval.

(unchanged). The consistency in this relationship suggests customers continued to attain the same level of time convenience value and functional experience with shopping malls in a Post-COVID period. It is suggested that tactics implemented during the pandemic, like 'Click and Collect' and QR code ordering, have facilitated greater speed and efficiency and have been widely accepted by customers, who continue to use these facilities (Roy et al., 2022).

Turning now to the relationships between hedonic and social interaction value, on to a customer's positive social experiences attained while visiting a shopping mall. As determined above, despite these relationships remaining significant, they appear to have weakened in a post-COVID era, hence are variant across the two time points. Hedonic value continued to positively influence a customer's social experience in both time points, however, now exerts a weaker influence. Equally, social interaction value continued to positively influence a customer's social experience, but now also exerts a substantially weaker influence in a Post-COVID period. It is suggested, that despite shopping malls traditionally being social places, offering fun and entertainment, in a

Table 6		
Path constrained	(Invariance	Test).

Path Constrained	χ ² at 95%	df at 95%	χ ²	Df	Pre-COVID and Post-COVID groups are variant
Constrained: Utility→ Funct (H1)	1796.01	517	1799.532	517	Yes
Constrained: Time \rightarrow Funct (H2)	1796.01	517	1792.203	517	No
Constrained: Trans \rightarrow Funct (H3)	1796.01	517	1797.681	517	Yes
Constrained: Hedo \rightarrow SocEx (H4)	1796.01	517	1798.295	517	Yes
Constrained: Soc→ SocEx (H5)	1796.01	517	1805.687	517	Yes
Constrained: Funct \rightarrow ReVis (H6)	1796.01	517	1792.208	517	No
Constrained: SocEx \rightarrow ReVis (H7)	1796.01	517	1801.060	517	Yes

Utility = Utilitarian value; Time = Time convenience value; Trans = Transaction value; Hedo = Hedonic value; Soc = Social interaction value; Funct = Functional experience; SocEx = Social experience; ReVis = Revisit intention. NB: The exact questionnaire items can be found in table X in the Appendix.

Post-COVID era individuals have found other avenues to facilitate these values and experiences. Research indicating a strong growth in social virtual reality platforms during the pandemic, that remain in place today (Barreda-Ángeles and Hartmann, 2022). Finally, the relationship between the functional experience customers encounter and their intentions to revisit the shopping mall remained unchanged between the two time points. As noted above, this invariant relationship can be explained by mechanisms implemented during the pandemic ('Click and Collect', QR code ordering), that have facilitated improved efficiency for customers (Roy et al., 2022). In contrast, customers' social experience now exerts a much weaker influence over their revisit intention in a Post-COVID period. Once again, as noted above, individuals sought alternative avenues to attain social experience during the pandemic, which now weaking this experience once offered by shopping malls, i.e., virtual volunteering (Siqueira et al., 2022), avatar gaming, AR/VR shopping (Billewar et al., 2022), virtual tours (Lu et al., 2022) and recreational sport (Liu et al., 2022). Arguably, safety measures have fundamentally altered the mall-going experience, transforming it into a less enjoyable activity than it was previously (Kirk and Rifkin, 2020; Northington et al., 2021; Siddiqi et al., 2022).

7. Contributions

7.1. Implications for theory

The findings of this research contribute to the theoretical knowledge in four ways. Firstly, the research extends current knowledge of shopping mall consumer behaviour by applying the recently developed MallVal scale in a western culture, in this instance, Australia (El-Adly and Eid, 2015, 2016). Secondly, this research is the first to measure the impact of the MallVal dimensions on customer experience from a holistic perspective, to now include outcome variables, such as customer experiences and revisit intentions (Gilboa et al., 2016). This research contributes new knowledge, finding a 'transformed' customer, who perceives the mall as a more functional space, rather than social place. Such a perspective is an important contribution to theory mainly because tenants such as cinemas, arcades, restaurants, bars and cafes that traditionally offer 'social places' may no longer offer competitive advantages (Gomes and Paula, 2016). Finally, the present study makes a significant theoretical contribution by employing the PE theory (Holland, 1959) in the consumer behaviour domain. This contribution is marked by the provision of a fresh perspective and novel insights that were hitherto unexplored, resulting in a more comprehensive and nuanced understanding of the post-COVID era as a distinct phenomenon. Moreover, this theoretical framework enables the emergence of new research questions and stimulates further investigation.

7.2. Implications for practice

The pandemic accelerated online shopping, prompting many shoppers to initially shift online as non-essential retail closed, and due to safety concerns, convenience, and the ability to avoid crowds. This current research indicates that in a Post-COVID era, the utilitarian and transaction value customers seek has increased, positively influencing the customers' functional experience. Unexpectedly, hedonic and social interaction value has shifted, becoming a weaker influence on their social experience, and intentions to revisit. Accordingly, just as customer's behaviours have transformed, it is incumbent on malls to adapt to a new reality to remain relevant. Accordingly, the following managerial implications are offered.

Firstly, utilitarian and transactional value appears to more strongly influence functional value. Time/convenience value is not unimportant per se, but remains invariant between the two time points. It is suggested mall managers focus on leveraging these strengths. Shopping malls and retailers have increased the implementation of technology as they emerged from the pandemic (Caboni and Pizzichini, 2022). For instance, the blending of retail media, live streaming, augmented reality and other forms of digital shopping at the mall. The widespread adoption of mobile phones among shoppers has been observed to contribute to increased sales and prolonged in-store durations (Grewal et al., 2018). As such, it is recommended that mall management capitalizes on this trend to improve utilitarian and transactional efficiencies.

While the functional experience of shopping malls has not changed post-COVID, it still drives revisit intentions, hence mall management must not neglect the functional experience entirely. The availability of a wide variety of retail stores, formats, and brands, but also various services such as banking, car washing, beauty salons, travel agencies, and more will assist consumers in rationalizing their visit to the mall and enhancing perceived value. In addition, time convenience value should be delivered through different options such as valet parking or facilitating curb-side pick-up for retailers inside the mall. The provision of digital mall directories strategically placed signage, and the implementation of interactive mapping through mobile applications, can enable shoppers to efficiently search and discover the diverse range of retailers and services available within the mall, thus inducing timeeffective navigation. The transactional value can be augmented by providing customers with the opportunity to encounter unexpected discoveries that exceed expectations. For instance, a frequent fixture of temporary pop-up shops, or personalized shopping experiences that increase the value-for-money equation.

Surprising, the overall results indicate customers are less driven by the hedonic and social elements of the shopping mall. These relationships remain important and significant, but have weakened Post-COVID. To respond and strengthen these relationships, mall management is encouraged to provide a unique and engaging shopping experiences based on the tenets of the social experience. Merely offering an extensive selection of restaurants and entertainment choices is no longer sufficient. To effectively entice and captivate customers, it is imperative to augment these offerings through the regular hosting of diverse events and activities. These can include fashion shows, concerts, art exhibits, and cultural festivals. As found by past research, shopping malls with entertainment are likely to perform better (Elmashhara and Soares, 2020; Mahmud et al., 2023) and enjoy an enhanced brand image and equity (Gomes and Paula, 2016). The social experience must be created holistically to create a satisfying ambiance for customers to accomplish their shopping objectives while also enabling them to relax and enjoy (Tsai, 2010).

7.3. Limitations and future research

We acknowledge several limitations, which may serve as future research directions. Firstly, the two studies were conducted in one specific national context, Australia. Yet, shopping behaviours and perceptions of value can vary significantly across cultures. Investigating how cultural differences impact shoppers' perceptions of value in shopping malls and how shopping malls can tailor their value proposition to different cultural groups may lead to fruitful findings. Secondly, by further examining perceptions of value, researchers and managers will gain an in-depth understanding of what drives contemporary customers to the shopping mall and how each element influences their customer experience and revisit intention. For instance, with the growing adoption of technology in shopping malls (Grewal et al., 2018), future research could investigate how the use of mobile apps, service robots, augmented reality, virtual reality, affect shoppers' perceived value of the shopping mall. Shopping malls are also evaluated on how they create an omnichannel experience and the provision of smart technology integration (Adapa et al., 2020; Wu et al., 2023). Future research should further explore how these "smart" shopping malls make use of intelligent technology to enhance the customer experience and can benefit customers, mall owners, and retailers (Fazal-e-Hasan, et al., 2021).

Thirdly, this work did not consider social media as a vehicle for consumers to share their social shopping experiences. Future research should investigate the impact of social media on perceived value and how shopping malls can leverage social media to enhance their value proposition. For instance, Instagram and Tik Tok offer considerable opportunities to augment the hedonic value and social interaction value associated with the social experience of shopping. Finally, future research should also explore perceptions of value other than the ones explored herein. For example, the impact of environmental sustainability on perceived value. Environmental sustainability has become an increasingly important factor in consumers' purchasing decisions. It would be fruitful to explore how shopping malls' sustainability practices (such as energy-efficient buildings, waste reduction, etc.) impact shoppers' perceived value.

Declaration of competing interest

I have no conflict of interest in relation to the publication of this work.

Data availability

Data will be made available on request.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jretconser.2023.103583.

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