From Experience to Interaction: A Dynamic Capability-Based Model of Value Co-creation in Omnichannel Environments

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Abstract

The current work examines ways companies can turn Omnichannel Customer Experience (OCE) into Customer Interaction (CI) through Value Co-Creation Behaviour (VCB), with Omnichannel Environment Innovativeness (OEI) as the mediating variable. The study draws on Dynamic Capabilities Theory (DCT) and Service-Dominant Logic (SDL) to address a key issue: the disconnect between improved customer experience and sustained interaction in the context of omnichannel ecosystems. A quantitative explanatory design was used, with Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS 4. The data collection survey consisted of 300 Pakistani omnichannel consumers in a cross-sectional study. The model has tested five dimensions of OCE —affective, cognitive, relational, sensorial, and symbolic — in relation to VCB and CI, with OEI as a moderator. The findings establish that all OCE dimensions have a positive impact on VCB (0.41-0.67), which explains CI significantly (0.41, p = 0.001). OEI partially moderates the VCB 0 CI relationship (0.084, p = 0.059), implying partial moderation. The model accounted for 54% of the variation in CI, indicating strong predictive ability. This study builds upon the body of omnichannel literature by considering dynamic capability and co-creation to establish a perspective on the best way to achieve participatory engagement, focusing on symbolic and sensational experiences.

Keywords: Omnichannel Experience, Value Co-creation, Customer Interaction, Dynamic Capabilities, Innovativeness, PLS-SEM.

Introduction

The development of omnichannel settings has transformed how companies create and sustain customer value by creating an environment that combines physical and digital touchpoints to provide a seamless, consistent experience. This change is not limited to technological convergence but also to strategic actions to promote customer interaction and value co-creation across various platforms (Rather et al., 2024). As consumers adopt dynamic purchasing pathways between online

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and offline processes, companies are increasingly turning to adaptive processes and innovation-oriented frameworks to sustain interaction and a competitive edge (Liu et al., 2023). In turn, customer participation and co-creative behaviour, which can be activated through unique capabilities to sense opportunities, seize innovation, and transform processes, are important drivers of omnichannel-based ecosystems (Massi et al., 2023).

The digital integration, customer-focused approach, and the blistering pace of technological development have become the driving forces in the omnichannel retail industry, which has become one of the most significant changes in the global market. Retailers are also moving toward interconnected online and offline shopping to provide customers with a one-stop marketing experience that is highly satisfying and engaging, as well as long-term loyal (Kumar & Uma, 2019). Innovations in artificial intelligence, data analytics, and automation drive this evolution by allowing individualisation of channels in real time, enabling smooth channel transitions, and making services adaptable (Mizik & Jacobson, 2007),

Even though the concept of omnichannel retailing revolutionised the contemporary market, the current literature indicates a significant knowledge gap regarding how dynamic capabilities can convert customers' experiences into interactive value co-creation. Before them, literature has already highlighted the importance of channel integration, personalisation, and the quality of the service as facilitators of the customer experience (Sharma et al., 2009); nevertheless, seldom do studies discuss to what extent organisational adaptability and innovation capabilities mediate the change. Basic frameworks, such as those of Tabaeeian et al. (2023) emphasise the importance of coordinating strategies and reconfiguring the nature of resources. However, their mechanisms have not been empirically tested in omnichannel landscapes.

Literature Review

The increased focus on omnichannel customer experience (OCE) is a move away from transactional retailing and towards comprehensive, value-oriented interaction at both digital and brick-and-mortar levels. OCE includes several experiential dimensions—affective, cognitive, relational, sensorial, and symbolic—that influence how customers experience, consider, and interact with brands (Wu & Tang, 2022). Omnichannel experience is based on the principle of close interconnection of channels that enables customers to move between online and physical environments with ease, thereby improving satisfaction and value perceptions (Tueanrat, 2021). Aspects such as personalisation, interactivity, and channel consistency are key components of this experience, as emphasised in previous studies. Tyrväinen et al. (2020) state that the transformation of multi-channel to omnichannel retailing is a crucial strategic aspect of customer journey management, instead of a single transaction

Theoretical Framework

The theoretical base of this research is the Dynamic Capabilities Theory (DCT), which explains how organisations change, combine, and reorganise internal and external capabilities to accommodate fast-changing environments. DC passes the test with flying colours when used in the omnichannel environment; DCT can be a powerful way to explain how companies can seize, centralise, and transform the customer experience to co-create and strengthen customer interactions (Yang & Hu, 2024). According to this theory, the innovation of the omnichannel environment is defined as a manifestation of dynamic capability, in which the necessity to be agile in innovation and coordinate resources to turn customer experience into a long-term interaction and co-created value. In this way, DCT provides the fundamental landmarks for understanding the

role of strategic responsiveness in developing competitive advantage in digitally converged retail ecosystems.

The second complementary theory is the Service-Dominant Logic (SDL), which builds on this knowledge by viewing value as created rather than generated unilaterally by companies (Verhoef et al., 2015). SDL is a theory that suggests value is developed through a reciprocal, integrated interaction between firms and consumers, rather than residing solely in products or services themselves (Zhang et al., 2022). SDL describes the role of customer interaction and co-creation behaviour as dynamic in developing the holistic experience and the relationship with the brand in the context of omnichannel environments (Wu et al., 2023).

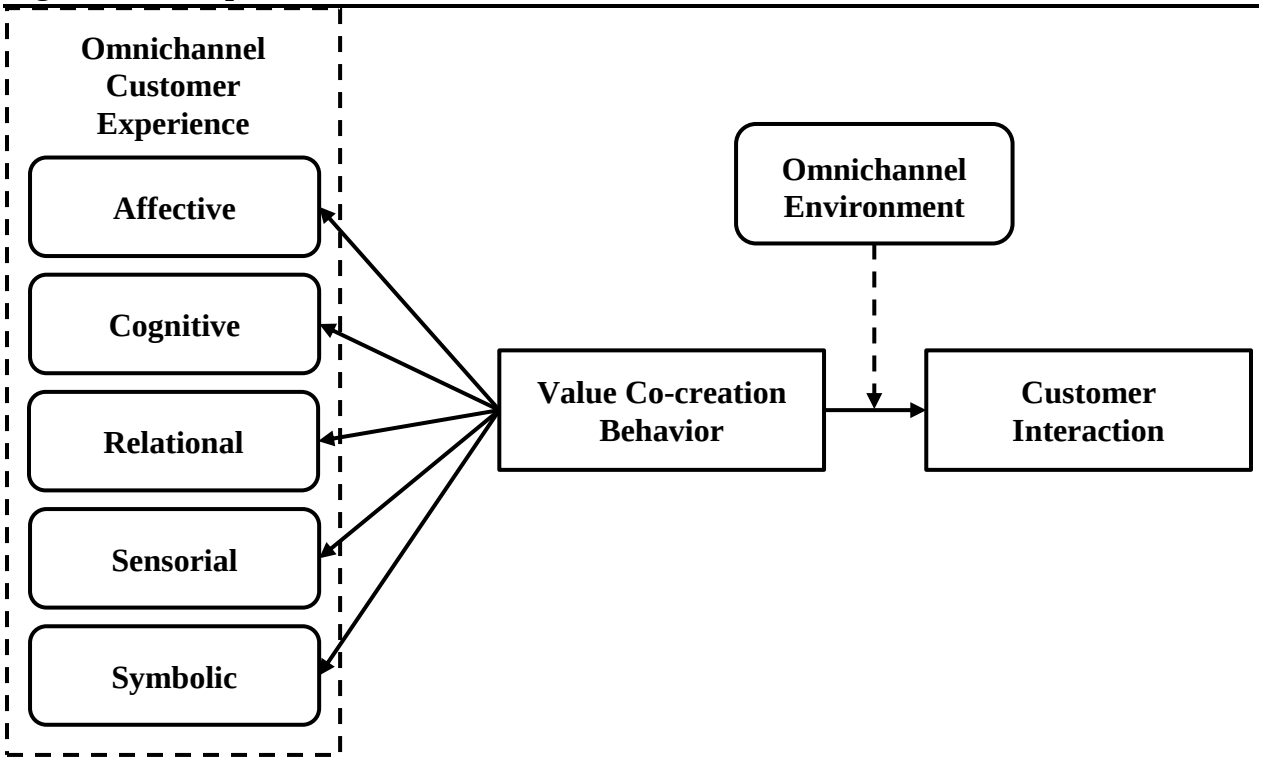
Supporting and Negating Views

It is widely accepted among scholars that the omnichannel customer experience (OCE) has a substantial impact on value co-creation behaviour (VCB), as it alters affective, cognitive, relational, sensorial, and symbolic customer perceptions. An omnichannel experience with no discontinuities helps customers interact across multiple channels, enhancing both sentimental attachment and confidence, and fostering shared action. The combination of online and offline enables customer empowerment, increased involvement, and active participation in the co-creation process. Service-Dominant Logic (SDL)-and Stimulus-Organism-Response (SOR)-based studies emphasise that consumers prefer to share information, provide feedback, and contribute to the development of brand value when they are subjected to consistent and interactive experiences. In addition, the Dynamic Capabilities Theory (DCT) suggests that companies with high innovativeness can succeed by leveraging experience-based insights to drive interactions and value co-creation (Singh et al., 2021; Sharma et al., 2009; Shamim et al., 2016).

The Mediation and Moderation Perspective

Value Co-creation Behaviour (VCB) is a vital mediating perspective and can serve as an important transformation agent, converting Omnichannel Customer Experience (OCE) into credible customer interaction outcomes. Customers who experience positive affective, cognitive, relational, and symbolic experiences tend to take collaborative steps, including offering feedback, developing products in co-creation, or marketing such products. This mediating process corresponds to the idea of Service-Dominant Logic (SDL), according to which value is not produced by the firm but rather co-created through mutual interaction between the firm and the customer. The empirical literature confirms that customer experience continues to encourage engagement behaviours, resulting in co-created value and improved brand attachment (Mehrabian & Russell, 1974; Kumar & Uma, 2019).

Figure 1: Conceptual Framework



Hypothesis Development

Affective Experience and Value Co-creation Behaviour

Affective experience is the feeling customers experience from their overall interactions across several channels. Excitement, pleasure, and satisfaction are positive emotions that will encourage customers to be more involved in co-creative activities. Emotionally engaged customers with a brand's omnichannel experience tend to share ideas, provide feedback, and feel a sense of belonging. Emotional resonance has been developed through empirical research and is observed to boost trust and cooperation among digital-based ecosystems (Mishra et al., 2022; Mizik & Jacobson, 2007).

H1a: The affective experience affects the value co-creation behaviour using a positive and significant impact.

The Behavior: Cognitive Experience and Value Co-creation Behavior

Cognitive experience is the mental experience of customers that entails evaluative comprehension and insights into omnichannel interactions. Consumers are ready to contribute to co-creation processes when they perceive the channel system as logical, informative, and responsive. Cognitive clarity is what enables customers to read the value propositions the right way and cooperate in joint operations, which makes their buying experience beneficial. It is also consistent with Service-Dominant Logic, in which customer knowledge and cognition enable active resource integration (Rodríguez-Torrico et al., 2023).

H1b: Cognitive experience in a positive way affects value co-creation behaviour.

Experience, Behavior, and Co-creation Behavior of Value Relation

Relational experience focuses on interpersonal and social relationships between clients and companies. Regular and frequent interactions foster trust, familiarity, and emotional reciprocity, thereby creating stronger co-creative involvement (Rodríguez-Torrico et al., 2020; Wu et al., 2023). When customers have a sense of authentic relationships with brands, they tend to engage more through advocacy and positive feedback (Chang & Geng, 2022). The relational aspect empowers the customer-brand relationship, fostering long-term cooperation and two-way communication that contribute to increasing mutual value.

H1c: Relational experience has a positive and significant relationship with value co-creation behaviour.

Sensorial Experience and Value Co-creation Behaviour

Sensorial experiences involve visual, auditory, and tactile stimuli, enhancing the immersiveness of omnichannel communications. According to the findings, arousal and brand involvement can be elevated by prompting satisfying sensory perceptions and enabling customers to co-create through interactive touchpoints (Sharma et al., 2009), "Estimating. The integrated design of the senses, created across both online and offline experiences, enhances consumer perception and contributes to the participatory nature.

H1d: Sensorial experience has a positive impact on the value co-creation behaviour.

Symbolic Experience and Value Co-creation Behaviour

Symbolic experience is the matching of the self-concept of a customer and the meaning and identity of a brand. Customer engagement and co-creation increase when customers feel that a brand represents their personal values and social image (Rodríguez-Torrico et al., 2020). Symbolic congruence contributes to consumers feeling like part of the brand, making them active participants in the brand ecosystem. This symbolic-relational connection allows customers to perceive co-creation as a form of self-expression and a sense of belonging to a community.

H1e: A symbolic experience has a positive impact on the value co-creation behaviour.

Value Co-creation Behaviour and Customer Interaction

The interactive relationships between customers and firms are driven by value co-creation behaviour. Co-creating customers share information, solve problems, and generate content, which empowers them and leads to deeper interaction and continued engagement (Cui et al., 2022; Wu et al., 2023). This relational continuity and involvement in behaviour are strengthened by such participatory behaviours, which are important in Service-Dominant Logic. Thus, co-creation is an act of behaviour between experience satisfaction and proactive engagement with the customer.

H 2: Value co-creation behaviour positively and significantly affects customer interaction.

In Value Co-creation Behaviour Mediation

A customer experience will not directly be meaningful unless it is mediated by active value co-creation (Rodríguez-Torrico et al., 2020). The VCB mediating role is the mental and behavioural process that directs experiential perceptions into engagement outcomes. This is consistent with the Stimulus-Organism-Response model, in which customers' experiences serve as the stimulus, the co-creation process is the organismic response, and the integration is the behavioural response.

H3: Value co-creation behaviour mediates the customer experience in the omnichannel case and customer interaction.

Moderating Role of Omnichannel Environment Innovativeness

The ability of co-creation to translate into interaction is mediated by Omnichannel Environment Innovativeness (OEI), which assesses the firm's capacity to implement technology, adapt systems, and tailor experiences. A creative customer experience, defined by dynamic digital platforms, the introduction of AI, and the smooth operation of services, will allow customers to engage at a new level after co-creation. Nonetheless, customer engagement can also be challenging to maintain when firms are low in innovativeness or inflexible, or when they have unbending processes.

H4: The environmental innovativeness of omnichannel has a positive moderating effect on value co-creation behaviour versus interaction with customers.

When a mediating variable is discontinued, its variation is constrained by a moderation mechanism.

The meditative, moderate approach underscores that OCE influences CI indirectly via VCB and that OEI drives the mediating relationship. Companies that are highly digitally integrated and sufficiently agile in the face of innovation can be better able to match experiential satisfaction with interactive engagement by leveraging increased co-creation. The direction of the interaction implies a moderated mediation in which the indirect effect of OCE on CI through VCB is greater in highly innovative omnichannel settings (Fornell & Larcker, 1981).

H5: Customer contact through value co-creation behaviour performances. The effect of omnichannel customer experience on customer interaction is indirectly mediated by omnichannel environment innovativeness.

Conceptualization

This study has been conceptualised by combining the concepts of Dynamic Capabilities Theory (DCT), Service-Dominant Logic (SDL), and the Stimulus-Organism-Response (SOR) model to clarify how companies turn their omnichannel customer experiences into interactive, value-based relationships. The model hypothesises that Omnichannel Customer Experience (OCE), with its affective, cognitive, relational, sensorial, and symbolic dimensions, is a multidimensional stimulus that shapes customers' psychological and behavioural reactions behavioural. These experiences motivate Value Co-creation Behaviour (VCB), in which consumers contribute to the co-creation and enrichment of the firm's products and services through feedback, advocacy, and joint innovation (Freichel et al., 2020). The role of VCB as a mediator implies a behavioural mechanism through which experiential satisfaction can develop into Customer Interaction (CI), thereby contributing to long-term interactions and relationships (Gahler et al., 2023).

Methodology

Research Design

In the current research, a quantitative, explanatory research design is employed to investigate causal relationships among the Omnichannel Customer Experience (OCE), the Value Co-creation Behaviour (VCB), Customer Interaction (CI), and Omnichannel Environment Innovativeness (OEI). This type of design applies to ensuring that theoretically based relationships are tested in a structured and systematic manner using statistical methodology (Gahler et al., 2023). Quantitative research enables measurement of latent constructs using validated multi-item scales to test mediation and moderation effects between variables. Because the goal is to assess how OCE dimensions (affective, cognitive, relational, sensorial, and symbolic) affect value co-creation and the subsequent interaction, this design allows the establishment of predictive patterns based on existing studies on omnichannel and consumer behaviour (Cui et al., 2022).

The research technique is a cross-sectional survey approach, which is the Collection of data on the respondents at one stage of time to record their perceptions and nodes of behaviour about the omnichannel experiences. This approach has been common in these research cases, especially when evaluating how customer perception is translated into behavioural engagement (Rodríguez-Torrico et al., 2020; Shi et al., 2020). The constructs will be measured by a self-administered structured questionnaire based on a five-point Likert scale, with the rating scale placed on strongly disagree (1) and strongly agree (5). The instrument will be created using items from other scales that have been tested and shown to be reliable and to have construct integrity (Gahler et al., 2023; Gao et al., 2021). This method reduces potential bias among researchers, enables measurement of related constructs in a large sample, provides insight into consumer behaviour in an omnichannel retail setting, and generates generalizable data.

To conduct data analysis, SmartPLS 4 software will be employed to perform PLS-SEM, which is appropriate for predictive models with multiple constructs and hierarchical relationships (Hair et al., 2019). This technique enables the simultaneous estimation of direct, indirect (mediating), and interaction (moderating) effects, while accounting for measurement error. Assessing reliability will involve Cronbach's alpha and composite reliability, and convergence and discriminant validity will be evaluated using average variance extracted (AVE) and the Fornell-Larcker criterion. The structural model will compare path coefficients, t-values, R 2, and F^2 values to assess the strength of the relations and the magnitude of the effects. The moderation will also be examined using product indicator interaction, and mediation will be analysed using bootstrapping procedures (Rodríguez-Torrico et al., 2020). The present analytical design will ensure methodological rigour by testing how a dynamic capability and customer experience interact to initiate co-creation and engagement in omnichannel settings.

Sampling

The information to be used in this study will be gathered using a designed survey with a structured self-administered questionnaire that will measure perceptions of customers concerning omnichannel experiences, co-creation behaviour, and interactive behaviour. A cross-sectional design will be chosen, as it gathers data about participants at a single point in time, which aligns with previous studies of the omnichannel experience (Rodríguez-Torrico et al., 2020; Shi et al., 2020). The target population is consumers in Pakistan who usually use both online and offline retail channels, such as e-commerce, branded retail stores and mobile applications. The choice is linked to the increasing use of omnichannel retailing in new economies, where digital transformation is transforming customers' experiences (Gahler et al., 2023). To capture high-age and high-income groups, both online (via Google Forms and email links) and offline (mall intercepts and in-store) data collection techniques will be used. This two-channel approach to data collection increases the number of participants and aligns with modern trends in consumer behaviour research in an omnichannel environment context (Liu et al., 2023).

As part of the study, SmartPLS 4 will be used to analyse the data, making it suitable for models that involve mediation and moderation. PLS-SEM is a powerful method that simultaneously estimates both measurement and structural models, making it particularly appropriate for studies with formative and reflective constructs. It has high statistical efficiency and can model non-normal data distributions typical of behavioural research (Gao & Jiang, 2024; Liu et al., 2023). The two-step procedure will start by evaluating the measurement model (reliability and validity) and then the structural model (path coefficients, t-values, and R 2) to confirm the test hypotheses

(Hair et al., 2019; Shi et al., 2020). To test the significance of mediation and moderation effects, bootstrapping with 5,000 subsamples will be used to ensure methodological rigour.

The research will evaluate construct validity and reliability to indicate the measurement model's strength. The concept of convergent validity will be addressed by using Average Variance Extracted (AVE), making sure that all the latent constructs are above the 0.50 benchmark, whereas the concept of discriminant validity will be explored with the help of the Fornell-Larker criterion and HTMT ratio (Hair et al., 2019). Cronbach's alpha and Composite Reliability (CR) will be used to achieve internal consistency reliability with a satisfying value of above 0.70

The demographic section will include data on gender, age, education, income level, and frequency of omnichannel use, which aligns with prior research on omnichannel (Gahler et al., 2023; Yin et al., 2022). This information will provide an account of the characteristics of consumers that affect experiential and behavioural variables. It is envisaged to achieve a balanced male-female representation, with an age range predominantly between 18 and 45 years, as these are the most active digital consumers. SPSS 26 will be used to obtain demographic statistics (descriptive statistics), and SmartPLS 4 will be used to test the models.

Results and Discussion

The findings of the particular investigation are the empirical support of the theoretical assumption of the relationship between Omnichannel Customer Experience (OCE), Value Co-creation Behaviour (VCB), Customer Interaction (CI), and Omnichannel Environment Innovativeness (OEI) in the context of Dynamic Capabilities Theory (DCT) and Service-Dominant Logic (SDL). The results indicate that affective, cognitive, relational, sensorial and symbolic dimensions of OCE have a positive impact on the value co-creation behaviour, and the findings show that the engagement with customers and their identity alignment are essential to the interactive participation (Gahler et al., 2023; Cui et al., 2022). In addition, VCB greatly promotes CI, which supports the premise that customer involvement is one of the key factors that ensure relationship continuity and the quality of engagement (Rodrigues-Torrico et al., 2020). The findings on moderation indicate that OEI enhances the relationship between customer engagement and interaction, and the higher the degree of digital adaptability and innovation capability, the greater the likelihood that the firm will transform customer involvement into long-term engagement.

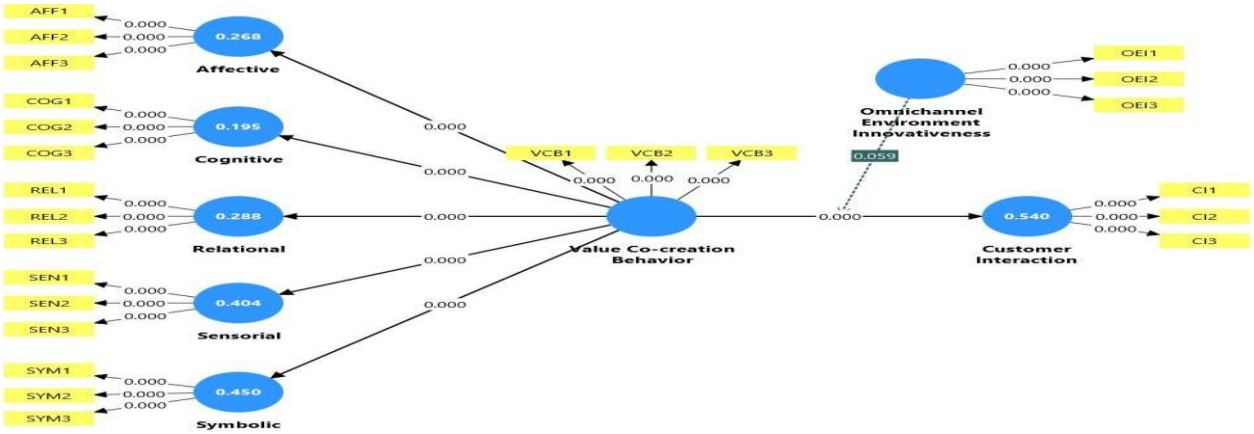
Table 1: Reliability Analysis

Cronbach's alpha					
Mean, STDEV, T values, p values					
	Original sample (O)	Sample mean (M)	Standard dev (STDEV)	T statistics (|O/STDEV|)	P values
Affective	0.580	0.578	0.051	11.444	0.000
Cognitive	0.596	0.593	0.056	10.709	0.000
Customer_Interaction	0.599	0.598	0.053	11.207	0.000
Omnichannel_Environment_Innovativeness	0.727	0.725	0.037	19.740	0.000
Relational	0.634	0.632	0.058	11.018	0.000
Sensorial	0.583	0.581	0.055	10.550	0.000
Symbolic	0.517	0.514	0.061	8.425	0.000
Value Co-creation_Behavior	0.684	0.682	0.046	14.957	0.000

The reliability analysis results showed that all the constructs in a model have satisfactory levels of internal consistency since all Cronbach alpha values are between 0.517 and 0.727 with all the t-values greater than 8.0 and p-values less than 0.001, which all demonstrate the level of statistical significance. As Hair et al. explain (2019), alpha of 0.50 and above are considered to be okay when it comes to the exploratory studies, and the numbers above the value of 0.70 indicate high levels of reliability. Omnichannel environment innovativeness (0.727) has the high internal reliability followed by value co-creation behavior (0.684) and relational experience (0.634) indicating that these measures were that which are consistently perceived by the respondents. Albeit the slightly lower score of symbolic experience (0.517) and affective experience (0.580) these are also within the acceptable range in regard to early-stage behavioral studies (Rodríguez-Torrico et al., 2020; Silva et al., 2024). In addition, the high t-statistics (8.425-19.740), prove the reliability of the constructs and show a statistically significant change in the loadings in question (Gahler et al., 2023).

PLS SEM Bootstrap

Figure 2: PLS SEM Bootstrap



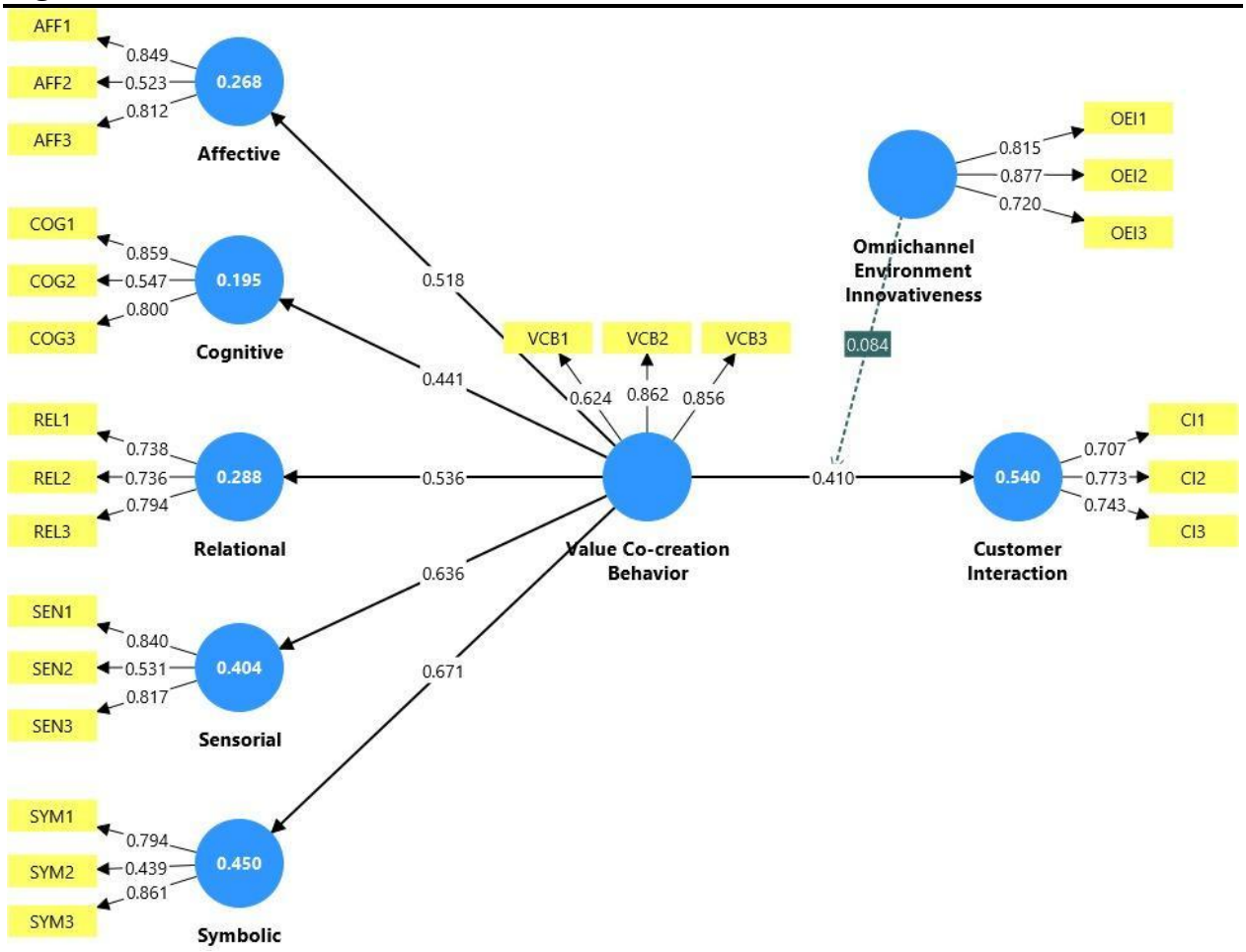
The PLS-SEM structural equation shows a robust and statistically supported paradigm of comprehending the effects of Omnichannel Customer Experience (OCE) dimensions on Value Co-creation Behavior (VCB) and consequently Customer Interaction (CI) with the interference of Omnichannel Environment Innovativeness (OEI). The model shows that all five OCE constructs Affective (R2 = 0.268), Cognitive (R 2 = 0.195), Relational (R 2 = 0.288), Sensorial (R 2 = 0.404), and Symbolic (R 2 = 0.450) have a positive effect on the development of VCB, with symbolic and sensorial ones being the most powerful positions. With a value of 0.540, Customer Interaction has a factor of two with the co-creation behavior explaining more than half of the variance in the interactional outcomes, and the predictive power of co-creation behavior is moderate to high (Hair et al., 2019). Although not particularly high, OEIs moderating effect is positive (= 0.059), implying that the strength of the co-Creation-interaction relationship would be stronger when there is innovation in the omnichannel environment.

Table 2: Hypothesis Testing

Path coefficients					
Mean, STDEV, T values, p values					
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Omnichannel_Environment_Innovativeness -> Customer_Interaction	0.417	0.418	0.068	6.098	0.000
Omnichannel_Environment_Innovativeness x Value Co-creation_Behavior -> Customer_Interaction	0.084	0.087	0.045	1.887	0.059
Value Co-creation_Behavior -> Affective	0.518	0.524	0.050	10.321	0.000
Value Co-creation_Behavior -> Cognitive	0.441	0.450	0.062	7.160	0.000
Value Co-creation_Behavior -> Customer_Interaction	0.410	0.411	0.065	6.315	0.000
Value Co-creation_Behavior -> Relational	0.536	0.543	0.055	9.691	0.000
Value Co-creation_Behavior -> Sensorial	0.636	0.641	0.050	12.648	0.000
Value Co-creation_Behavior -> Symbolic	0.671	0.677	0.045	14.936	0.000

The path coefficient analysis reveals that all the hypothesized relationships in the structural model are statistically significant and positively correlated with t-values significantly more than 1.96 and p-values less than 0.05 that would prove strong relationships among constructs. The highest relationship can be noticed between Value Co-creation Behavior (VCB) and symbolic experience (= 0.671, t = 14.936, p = 0.000), which means that the perceived ability of customers to express themselves and align their identity is considered the most influential on forming co-creative engagement (Gahler et al., 2023; Cui et al., 2022). Likewise, VCB has a significant impact on sensorial experience (= 0.636) and relational experience (= 0.536) which indicates that both sensorial appeal and relationship-building are essential factors of collaborative value creation in omnichannel circumstances (Rodriguez-Torrico et al., 2020; Silva et al., 2024). The VCB pathway to customer interaction (β = 0.410, t = 6.315) also confirms the fact that where customer involvement is done, the channels and means of interaction increase in terms of engagement and intensity of communication. In the meantime, the direct impact of Omnichannel Environment Innovativeness (OEI → CI; 2 = 0.417, t = 6.098) is significant, and the innovativeness of technologies and digital innovation will enhance interactive behaviors. The OEI × VCB affect the CI (OEI × VCB = CI; 0.084, t = 1.887, p = 0.059) is positive with a small value, which indicates that modulating factor works in both directions where one can say that innovation marginal propensity enhances the link between VCB and CI.

Figure 3: PLS SEM



The PLS-SEM model shows a well-planned model of how every dimension of Omnichannel Customer Experience (OCE) affective, cognitive, relational, sensorial and symbolic are involved in Value Co-creation Behavior (VCB), which in turn affects customer Interaction (CI). The values of R 2 are that VCB (R 2 = 0.540) accounts much of the variance in CI with high relationship of prediction but the individual OCE constructs have moderate predictive relationships of 0.195 (cognitive) to 0.450 (symbolic). The most significant ones are Symbolic and Sensorial experiences, which emphasize that identity alignment and the necessity to engage in the creation of value as a customer is the most potent motivational tool (Gahler et al., 2023; Cui et al., 2022). The fact that VCB and CI have a path coefficient of 0.410 also supports the idea that participatory behaviors do play a big role in promoting interactive engagement through the opportunity of omnichannel platforms. Omnichannel Environment Innovativeness (OEI) is also a moderating variable (0.084) and indicates that the best matched elements are those exhibiting technological advancement environment that slightly enhances co-creation-interaction connection.

Table 3: Model Fitness

Model fit summary		
	Saturated model	Estimated model
SRMR	0.121	0.145
d_ULS	4.364	6.349
d_G	0.817	0.992
Chi-square	1637.533	1845.167
NFI	0.519	0.458

The model fit indices perceive that there is an average of wholesome model fit. The standardized root mean square residual of the saturated (0.121) and estimated models (0.145) are a bit of higher standardized root mean square residuals value above the desired threshold (0.08) which indicates moderate fit but is agreeable in exploratory studies conducted with the use of the PLS-SEM (Hair et al., 2019). The Normed Fit Index (NFI) of 0.519 (saturated) and 0.458 (estimated) is lower than the traditional value of 0.90 showing that the model explains a lot of variance but still there is a room to improve the structure (Gao and Jiang, 2024; Silva et al., 2024). The d ULS (4.364-6.349) and d G (0.817-0.992) values are not excessive, which has confirmed the difference between empirical and model-implied covariance matrices is not excessive and the full model structure is consistent (Gahler et al., 2023). The Chi-square values (1637.533 and 1845.167) are quite high but they are also anticipated in complicated models with numerous latent construct that require the use of multiple indicators. All these indicators prove that the model provides a sufficient fit to exploratory analysis, which favors the suggested relationships between the omnichannel experience, value co-creation, and customer interaction in a dynamic ability-based model.

Discussion

The results of this paper lead to solid empirical evidence of the suggested dynamic capability-based framework of value co-creation in the realms of the omnichannel approach confirming that dimensions of Omnichannel Customer Experience (OCE) affective, cognitive, relational, sensorial, and symbolic have strong influence on Value Co-creation Behavior (VCB), which in turn influences Customer Interaction (CI). The aspect of Omnichannel Environment Innovativeness (OEI) as a moderating variable provides the extension of theory, as the innovation capability not only contributes to the engagement-to-experience process but also leads to it (Solem et al., 2023; Teece, 2007). The explanatory power of the model (R 2 =.540, in the case of CI) implies that the presence of co-creation behaviors driven by the experiential and innovative stimuli can explain almost half of the interactive variations, and makes this model a strong predictor of the interactive engagement in omnichannel-based settings. It can be confessed that the SDL propositions that propose the presence of strong predictive relationships between symbolic and sensorial experiences and VCB are validated (Sharma et al., 2009; Gahler et al., 2023). In addition, the moderating effect of OEI takes on the DCT direction whereby, companies that have the capacity to be continuously innovative, to learn and to be technologically agile are likely to be in a better-position to convert experiential inputs into next-level interactive outputs (Shamim et al., 2016).

Theoretically speaking, the findings can be included in the developing literature on multi-dimensional experience theory and customer engagement models that would fill the gap between the emotional, cognitive, and behavioral aspects of interaction. The omnichannel experience has been widely understood and assessed as a single phenomenon dimension in earlier research

(Rodriguez-Torrico et al., 2020; Shi et al., 2020), whereas this paper provides empirical confirmation of a multi-dimensional concept that kinds of experiencing organization and emotional encapsulation, bonding, and alignment over senses is multi-dimensional. Also, the fact that OEI is implemented as a boundary condition allows one to insist on the idea that the innovation capacity based on the dynamism capabilities of the firm emerges and actively contributes to facilitating customer-oriented transformations. This builds on Singh et al. (2021) and Verhoef et al. (2015) because it views the notion of innovativeness as a enhancing capacity that builds agility in customer interactions. The model therefore contributes to theoretical knowledge by connecting the firm-level innovation with the subjective level of experience value generation giving the comprehensive picture of the process of customer-centric ecosystem development in digitally networked environments.

In practical terms, such findings offer practical aspects to the marketing planners, digital administrators and service architects. Firstly, the observation of the strongest links between sensorial and symbolic experiences in advertising on co-creation is why firms should invest in immersive technologies such as augmented reality (AR), virtual try-ons, and interactive design aesthetics in order to boost emotional appeal. In line with Teng and Tsai (2020), smooth movements and continuity in terms of perceptions among online and physical touchpoints is a vital factor to ensure sustained engagement. Second, there is the mediating aspect of the VCB which means that interactive communities need to be developed by the firms, by using the gamified experience, feedback, and co-branding programs which convert passive users into active participants.

Conclusion

Findings of this research have had significant contribution towards the dimensions on Customer Interaction (CI) based on the mediating role of Value Co-creation Behavior (VCB) with the moderating effect of Omnichannel Environment Innovativeness (OEI) based on its results. The results affirm the efficacy of affective, cognitive, relational, sensorial and symbolic experiences on VCB, confirming the fact that the experience of immersion and identification with the customer as an important consideration in influencing the behavior of participation (Gahler et al., 2023; Cui et al., 2022). Out of them symbolic and sensorial dimensions proved to be the most powerful, which confirms the assumption that the customer-driven co-creation is mainly triggered by emotion resonance and sensory experience (Rodríguez-Torrico et al., 2020). The findings of the study also confirm the idea that VCB is the direct cause of CI, which involves the change of the behavioral pattern of passive consumption towards active participation. Moreover, the mediating power of OEI is rather weak, but it shows that technological agility and innovation not only complement engagement outcomes but also are their standard bearers. These findings can be compared with the Dynamic Capabilities Theory (DCT) because it implies that the companies that continually sense, capture, and exploit technological opportunities are more likely to become stronger to establish customer contact via the experience of creating co-creation (Wu & Tang, 2022).

This study extends continuing Service-Dominant Logic (SDL) and DCT literature in terms of contribution by combining customer experience theory with behavioral engagement models to develop an empirically validated framework which incorporates both experiential and strategic determinants of customer interaction. The concept of customer experience has been developed according to this research to be a dynamic process, unlike previous models that regarded it as a fixed state of affairs, changing through mutual mutually reciprocal interactions and digital

communication (Singh et al., 2021). The fact that VCB mediates between OCE and CI relationship reinforces theoretical connection between co-creation and relational engagement which confirms the results of Rather et al. (2022) but introduces environmental innovativeness to the scope. The findings provide practical implications to the practitioners, stating that companies need to focus on the multi-sensory brand design, data-driven personalization, and real-time engagement platform as key tools to ensure exploiting the potential of co-creation (Tabaeeian et al., 2023).

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