Bridging Customer Experience with Omni-channel management: an integrative framework for a management and research agenda

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Abstract

Customer experience (CX) management and omni-channel management are both topical and critical issues for achieving competitive advantage in today's markets. Yet, both issues are very closely linked, as CX occurs across different touchpoints, the goal being a seamless CX across all channels. Based on a synthesis of related literature, this article suggests an integrative framework for omni-channel CX management comprising five components: customer expectations, customer (received) experience, brand promises, brand CX design and implementation, and omni-channel management. Key challenges and priorities are pinpointed and propositions for researchers and managers are provided to effectively deal with these challenges.

Keywords: Customer experience management; Omni-channel management; Channels-mix

1. Introduction

During the past decade Customer Experience (CX) Management (CXM) has emerged as a key issue for businesses and a topical field for academic research (Lemon & Verhoef 2016; Becker and Jaakkola, 2020; Gahler, Klein and Paul, 2022). From a business perspective, CXM has gained strategic importance because it can provide a strong competitive advantage of differentiation and customer engagement which is difficult to copy by competitors. At the same time, the emergence of a plethora of new channels, especially digital, to reach customers raises important omnichannel management challenges (Piotrowicz & Cuthbertson, 2014; Palmatier, Sivadas, Stern and El-Ansary, 2019; Ailawadi & Farris, 2017). Further, the combination of "traditional" (physical) with digital channels and media, creates almost endless phygital opportunities for new customer experiences and leads to new behavioral patterns and customer journeys (Verhoef, Kannan and Inman, 2015).

Given that CX is formed during the interactions with brand's channels and touchpoints, and that customers are already multi-screening and multi-channel, it becomes clear that CXM and omnichannel management are intrinsically linked and serve a common objective, the seamless customer experience across all channels.

In front of this complex challenge, most academic research has addressed CX from customer's perspective, i.e., the concept itself, its dimensions and measurement (Becker and Jaakkola, 2020; Gahler et al., 2022). Much less work exists on CX from firm's perspective, i.e., a framework on how to plan, implement and monitor CX in the omni-channel environment (Picot-Coupey, Huré, Piveteau, Towers and Kotzab, 2016; Berman, & Thelen, 2018). Specific aspects of omnichannel management have been studied in diverse fields such as logistics and operations, channel management, integrated marketing communications, and marketing (Palmatier et al., 2019; Payne, Peltier and Barger, 2017; Mirzabeiki & Saghiri, 2020; Verhoef et al., 2015), but rarely an explicit link between CXM and omnichannel management has been proposed (Rahman, Carlson, Gudergan, Wetzels and Grewal, 2022).

Based on a synthesis of previous work in these two fields, the objective of the present paper is to contribute to filling this gap by providing an integrative framework for omnichannel customer experience management (OCXM) and on this basis to propose (a) key management challenges (b) research opportunities to address these challenges. In this way it aims to contribute to a 360 view of customer experience management for both academia and business community. Below we present the components of the suggested framework and discuss key research and management priorities, challenges, and propositions.

2. The Components of the Omnichannel Customer Experience Management Framework (the DEEP-C framework)

We named the proposed OCXM framework DEEP-C, which is the acronym of its 5 pillars: Design, Expectations, Experience, Promises and Channels (see Figure 1). Expectations and Experience are customer-side components, while CX design, Promises and channels are company-side elements. Due to space limitations, key management and research challenges are discussed in the main text, while managerial propositions and research opportunities and suggested approaches are further elaborated respectively in tables 1 and 2 at the end of the main text.

2.1. Customer expectations

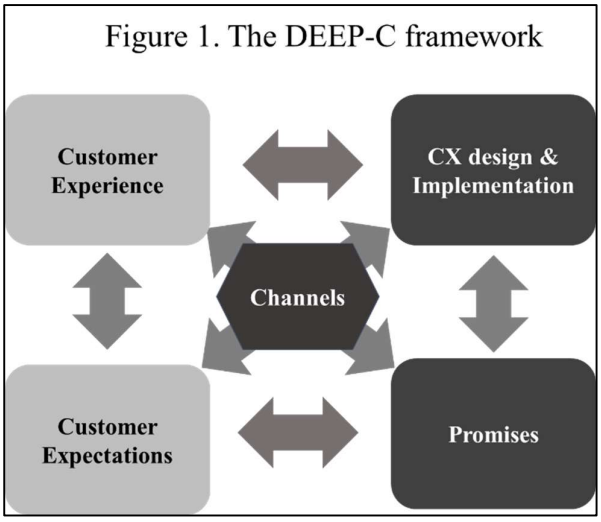

Figure 1. The DEEP-C framework

Customers' expectations are part of the OCXM framework since they directly affect his/her experience. They have been typically studied as benchmarks against which the customer compares the experience s/he receives; satisfaction or perceived quality are defined as the result of such comparison (e.g., Lemon & Verhoef, 2016). Although several product or service attributes can be described objectively (ingredients, number of delivery days), customer expectations are mostly expressed subjectively. Expectations are influenced by (Verhoef, Lemon, Parasuraman, Roggeveen, Tsiros & Schlesinger, 2009; McColl-Kennedy, Zaki, Lemon, Urmetzer and Neely, 2019):

- company-related stimuli, what we defined below as "promises", and previous experiences with the brand through the mechanisms of cognitive and behavioral learning
- previous experiences with other companies,
- word-of-mouth coming from all kinds of third-party sources, such as friends, customer reviews and ratings, blogs, social media, comparison and review sites,
- individual characteristics (demographics and psychographics) as well as context-specific factors (time pressure, buying / consumption occasion).

Knowing and shaping customers' expectations is a rather neglected issue for many companies; however, this can be an important leverage to manage customer experience. From an OCXM perspective, identifying the "level" or threshold of expectations is crucial since it is a fundamental input for the design of the experience (product attributes, service characteristics, processes and operations design, etc). As discussed below for promises, expectations do not only concern product / service features, but also all interactions with the company.

A key management and research issue here is capturing expectations for different customer segments and circumstances, as expectations are influenced by personal characteristics and context (Piotrowicz and Cuthbertson, 2014; Kuehnl, Jozic and Homburg, 2019). A common argument is that customers are systematically very demanding, having "maximum" expectations and seeking "WoW" experiences (Carù and Cova, 2003), yet this is far from being true across products and contexts (Becker & Jaakkola, 2020; Dixon, Freeman and Toman, 2010). In fact, there are situations where customer expectations may be "low", in the sense that all the customer expects is to complete the transaction quickly, easily, efficiently, with minimum hassle (e.g., visit to a dentist, a transaction with the tax authority). At the other end, in "special occasions", like a birthday party or a honey-moon trip, expectations will reach a "maximum" level, seeking an exceptional and memorable experience.

To handle expectations, research opportunities exist in identifying variables that influence the level of expectations, in establishing expectations-based customer profiling and ultimately in determining an "expectation ladder" for specific products, situations and target groups.

2.2. Customer experience

The experience a customer receives is defined as customer's cognitive, emotional, behavioral, sensorial/physical, and social responses to a firm's offerings, built up through a

collection of touchpoints in multiple phases of a customer's purchase journey (Lemon & Verhoef, 2016). Because of its multidimensional and dynamic nature, customer journey mapping (CJM) has emerged as one of the most appropriate tools for capturing and improving customer experience (Kuehnl et al., 2019; Towers and Towers, 2021).

CJM involves several methodological and practical considerations, such as methods for getting the information, number of journeys, journey length and level of detail in the analysis, timing of the mapping etc. (McColl-Kennedy et al., 2019; McColl-Kennedy, Gustafsson, Jaakkola, Klaus, Radnor, Perks and Friman, 2015; Mele and Russo-Spena, 2022).

A second set of important issues refer to the measurement of CX. Typical measures include (Lemon & Verhoef, 2016; McColl-Kennedy et al., 2019): (a) customer self-reported (subjective) metrics like satisfaction, Net Promoter Score, delight, customer effort, perceived quality, measured via surveys. Recently, multidimensional scales have been suggested encompassing affective, cognitive, physical, relational, sensorial and symbolic dimensions (Gahler et al., 2022); (b) observed (objective) metrics, based on company's analytics, such as numbers of complains, returns, waiting times, out-of-stock, repeat visiting/buying, and so on, depending on company's activity. There is not yet agreement on robust measurement approaches to evaluate all aspects of customer experience across the customer journey. Combining different metrics is an important research issue, since the use of multiple methods and metrics seem to predict customer behavior better than a single metric (Lemon & Verhoef, 2016; Rahman et al., 2022).

Finally, an additional difficulty arises from the cumulative nature of CX, across various interactions and across time (Verhoef et al., 2009). The question of determining how the overall experience is formed out of a plethora of touchpoints and (past) journeys remains to date unanswered.

2.3. Customer experience design and implementation

This is the more complex, more critical pillar of OCXM, during which the company designs - or redesigns - and then implements the components of the experience offered to the customer. This stage reveals the strategic and cross-functional nature of OCXM.

In fact, experience design embraces various functions and departments, no matter how much "front" or "back-office" they are, such as product, service and store design, user interface design (for web sites, e-shops, applications), decisions on operations and process design (blueprints), definition of rules, terms and conditions of customer service, loyalty programs; it is also closely related to information flows, information systems and data management platforms, since these support all business operations, processes and data necessary for CXM. (McColl-Kennedy et al. 2015; Mirzabeiki & Saghiri, 2020; Palmatier et al., 2019).

Through these decisions the company *defines* a journey frame for its customers, i.e. what is provided and what is not, what options are offered to the customer, what tasks s/he has to accomplish in order to get/use the product or service, what customer behaviors are expected. In fact, during CX design the company tailors the suit (or the shoes) in which the company invites the customer to fit in (McColl-Kennedy et al., 2019).

To the extent that external partners are involved in the product/service delivery or customer care, these actors should be integrated in the CX design and implementation process, although not fully controlled by the company (Verhoef et al., 2009). Also, since experiences are co-created by customers themselves and/or by their interactions with other customers (Lemon & Verhoef, 2016; McColl-Kennedy et al., 2019), CX design should account for them too.

When relating CX design to customer expectations, a fundamental decision is the "meet or exceed customer's expectation" dilemma. Systematically trying to exceed customer expectations is costly and difficult in terms of resources, operations and processes; it will also constantly raise the expectations level and increase the chances of disappointing the customer. Also, as some evidence shows, in some cases the customer does not expect nor will necessarily value and "wow" experience; (Dixon et al., 2010; Becker and Jaakkola, 2020). The "expectations" ladder should be a guide for this kind of decision.

Given the cross-functional nature of OCXM, this pillar includes also important organizational challenges (Picot-Coupey et al., 2016; Berman, and Thelen, 2018; Payne et al., 2017; Homburg, Jozić, and Kuehnl, 2017), notably the structure of the CX team and its position in the organizational chart, new roles for front-line employees, the creation of a CX culture in the company, the link of CX reporting with financial and strategic KPIs.

Research opportunities to help address these challenges include the measurement of CX orientation of a company, the causal links between CX performance and strategic KPIs, the effect of incremental changes in CX design on customer experience.

2.4. Promises

Promises constitute a pillar of OCXM because (a) they shape customers' expectations to a great extent and (b) they express the brand's offering (product, service and overall experience) to its target audiences. Typically promises would refer to the communication messages of the company (content and advertising, via physical and electronic means). Indeed, what has mainly been studied in the marketing literature is the effect of such communications on customers' perceptions and behaviors (e.g., Duncan and Moriarty, 1998). Yet, in a CX context, the ways expectations are influenced by company-generated "messages" are much more diverse and broader.

In the perspective of the customer journey (Payne et al., 2017; Lemon and Verhoef, 2016; Becker and Jaakkola, 2020), should be considered as "promises" all information on the company, the brand, its products, services, processes, terms and conditions, customer-related policies, set and defined by the company that reaches the customer through any of its channels. In fact, all features and processes of the designed CX that are made visible to the customer constitute promises. Thus, many promises are made at a channel or specific brand-customer interaction level. For instance, the statement "our mobile banking app is just as secure as e-banking"; the order confirmation e-mail of an e-shop saying "your e-order will be delivered tomorrow"; the return or the privacy policy of a retailer, are all promises, which may take the form of contractual terms in certain contexts (e.g. an insurance contract). These promises are under total control of the company as far as its own channels are concerned but much less when third parties are involved in the brand – customer interaction (retailers, agents, franchisees).

From a management perspective, the first key question is whether all channels are fully aware of the promises they convey. Although marketing and communication departments are the ones who define and manage corporate, brand and product positioning, USPs and promotional messages, what is often overlooked as promises are "details", or micro-promises (Becker & Jaakkola, 2020), at the channel and interaction level, like the pictures of the facilities of a hotel and its distance from the beach, the statement during a call with the support team that "I will look at the issue and call you back in a few minutes". This makes hundreds of promises, that are often renewed in day-to-day interactions with the customer.

The next important management decision is the "level" promises are set to, relative to what the brand can deliver. Over-promising is tempting since it is pleasant and attractive for the customer, and this is typically the case with advertising messages that tend to exaggerate.

However, the risk of disappointing the customer may be high. Of course, under-promising is rarely the case, yet it does happen that aspects of the offering (experience) that constitute important customer expectations are not communicated. The matching - or gaps - between promises on one side and customer expectations or brand's delivery capacity on the other, is a critical trust issue (Lemon & Verhoef, 2016; Berman and Thelen, 2018). A third important issue is the alignment and the consistency of promises across all channels and over time.

These management issues create several research opportunities: gap analysis between promises and expectations, promises and CX design (brand's delivery capacity); effects of over- under-promising on trust; comparison of such gap customers' perceptions with managers' and front-line stuff perceptions.

2.5. Channels

This is where the company's offering is delivered, this is where the customer experiences it. It is worth mentioning that these should be managed as two-way channels, delivering the experience to the customer but also capturing information about and feedback from the customer (Mele and Russo-Spena, 2022).

Channels encompass not only those of sales, distribution and communication (Ailawadi and Farris, 2017), but also customer support and any means of contact the customer comes across during his journey, including the product itself (technology and the internet of things have converted products to channels, like the wearable connected devices, the QR codes on a packaging, or the smart home appliances). It is useful to distinguish brand-owned channels and third-party partner and non-partner channels (Lemon and Verhoef, 2016; Towers and Towers, 2021), because they correspond to different degrees of brand's control on them – and consequently brand's control over the end-to-end customer experience. Control over the customer journey touchpoints is crucial for effective OCXM. For design and monitoring purposes, it is also meaningful to distinguish different levels of touchpoint aggregation (e.g. Becker and Jaakkola, 2020); for instance, a physical store (channel) includes several touchpoints (salespersons, in-store screens, cashiers) which may comprise smaller stimulus units (a QR code, a salesperson's tablet).

The key managerial challenges involve the (initial design and permanent audit of) channel-mix orchestration and the consistency of the CX delivered across channels (Ailawadi & Farris, 2017; Neslin, 2022; Berman and Thelen, 2018; Palmatier et al. 2019; Verhoef et al., 2015). Channels orchestration decisions are complex and resource-demanding, particularly because of the multitude of new digital and phygital channels. The following questions may serve as a guide for these decisions: which and how many channels adopt/use; for what business objectives (e.g., awareness, traffic, leads, sales, exposure, market coverage, lower cost/sale, customer engagement, positive word-of-mouth, enhanced customer experience, brand image etc.); what to offer via each channel (e.g., large high-end product assortment, salesperson advice, virtual and physical "try-before-you-buy" possibilities, products demo, on-line order pick-up, returns, reservation or e-order for missing items, 24/7 sales, order tracking etc.); what form each channel will have (e.g., size and atmospherics of a physical store, design and functionality of an e-shop, web site, application, chat bot etc.); which KPIs use to assess the performance of each channel (e.g., visits, sales, conversion rate, average basket value, sales/sqm, e-orders picked-up, frequency of use, sales, new memberships, number of calls, call duration, number of issues resolved, waiting times etc.); how assess the contribution of each channel to an overall objective (e.g., via attribution modeling).

The channels consistency challenge concerns all image, information and functionalities-related aspects that are vehiculated via the channels: brand identity, content (thematic storytelling), ads and other communication message consistency; product and service

information; prices, discounts, offers and promotional activities; customer care terms and interaction behavior; and "feel and look" unification of the various channels (e.g., Sousa and Voss 2006; Homburg et al., 2017; Payne et al., 2017; Kuehnl et al., 2019; Rodríguez-Torrico , San José Cabezudo, San-Martín and Trabold Apadula, 2023). When third-party channels are used, the consistency challenge becomes even more complex (Mirzabeiki and Saghiri, 2020; Berman and Thelen, 2018; McColl-Kennedy et al., 2015).

Research areas for the above-mentioned challenges include the measurement of the "seamless experience"; modelling the contribution of each channel to a specific overall objective; identification of customers' channel use patterns; and explanation of customer preferences for different channels, accounting for different customer profile and buying contexts.

3. Conclusion

Research on CX has been mainly focused on the conceptualization and the customer-based measurement of the construct, neglecting the broader management perspective of it. Also, although omnichannel management and CX are highly interdependent, so far, they have been studied in a rather isolated way. Responding to calls for further work in the field (e.g., Becker and Jaakkola, 2020; Rahman et al., 2022), the objectives of this paper were to suggest a broader view of CX management and integrate it with the omnichannel issues to provide a common management and research agenda.

Through the proposed OCXM framework we (a) mapped the key management challenges and highlighted ways to deal with them (b) we identified research priorities and suggested approaches to address them. This work will contribute to advancing both researchers' and practitioners' work on this high priority field and to inspiring further methodological and practical developments.

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Table 1. Key pitfalls and challenges of the DEEP-C OCXM framework – and ways to deal with them.

OCXM pillars	Pitfalls	Challenges	How to avoid / overcome
Customer Expectations	Lack of knowledge; benchmark the "average" customer	Measurement, track evolution over time, overall, by customer profile and context.	Constant technology and market monitoring (BI). Include customer expectations insights in market surveys, make it part of the Voice of Customer (VOC) process. Establish and regularly revise expectations ladder, by key persona and context. Communicate the information to all front-line touchpoints. Use the expectations ladder as a guide for adapting the CX design.
Customer Experience	Measure "average" customer; use of limited (one type of) metrics. Be lost in the many details of CJ maps.	Choose the right metrics, combine different data and metrics. Analyze too much information, from various channels and in various forms; identify degree of control over the CJ relative to 3rd parties. Develop first-party data sources.	Use or develop CJM expertise. Use all sources of insights and cross-check with multiple metrics and KPIs. Identify and focus on priorities (critical moments/channels). Diffuse key insights across departments, particularly those directly involved in CX design, implementation and delivery.
Promises	Over- or under-promises; limited perspective (to only commercial communication); neglect micro-promises.	Align promises to expectations; become trustworthy; align messages and promises across all channels.	Make aware and involve all actors and channels that make promises. Use standard vocabulary and establish code of promises. Be transparent, consistent over time and honest (relative to what the brand can deliver) to inspire trust.
Experience design and implementation	Actors and departments involved not sharing the same customer-centric view; silos of product / service / operations vs horizontal CX orientation; mix blueprints with CJM; not include external partners. WoW experience trap.	Design seamless experience across channels; break functional silos; involve all internal and external partners. Balance delivered experience to expectations under business constrains and objectives.	Establish cross-functional teams and collaboration. Create and constantly stimulate CX culture. Establish collaborative strategy with key partners. Be quick in responding to customer feedback but also work proactively. Go for quick wins (break the work into actionable smaller pieces) and step-by-step improvements in a learning-by-doing approach. Handle issues "end-to-end" (revise the whole process or operation, not just the chunk that come out as a paint point in isolation).
Channels	Organizational silos, structure by channel. Unclear channel strategy. Lack of (IT) infrastructure. Disparate, fragmented, unsensitized and/or unequipped third-party channel network.	Deliver consistently whatever promised and designed; Information sharing and alignment along the supply chain. Channel conflicts. Integrate CX & channels strategies. Omni-channel reporting system. Information systems and data integration. Resources and investment needed (systems, technology, knowhow, physical/digital).	Set channel- specific roles *and* overall cross-channel objectives. Use a channel-mix map for an orchestrated view and audit. Work on a collaborative supply chain (partner) strategy. Prepare salespeople & front-line personnel for the changes: train, review, adapt job descriptions, incentives & compensation system. Look after front-line employee experience. Integrate channels analytics, move towards attribution models. Invest in supply chain and logistics technologies. Include CX considerations in logistics optimization strategy.
Overall OCXM	CX regarded as a constrain rather than a vision. Pure short-term financial results orientation. Lack of or limited horizontal collaboration, internal competition among departments.	Have long-term vision, yet pursue early results. Create and maintain customer-centric culture across the organization. Mobilize the necessary resources. Position of CX (manager and team) in the organizational chart	Managing by example (top-down change); Start with and get support from senior management. Target quick wins; use change agents and agile management approaches.

Table 2. Research challenges, opportunities, and approaches

OCXM pillars	Challenges	Approach
Customer Expectations	Measurement of expectations and preferences for channels and touchpoints interactions. Identification of variables determining various levels of expectations (customer profile, contextual variables, product involvement, etc) to establish the "expectations ladder". Expectations-based customer typologies.	Insights from various sources and in various forms (market research, salespersons, front-line personnel, surveys, social listening, reviews, customer feedback, complains, comments). Customer surveys in various stages of the customer journey. Analytical measures (product, service, processes, customer care, etc). Experimental approaches for expectations thresholds.
Customer Experience	Methodological issues of designing implementing and analyzing CJM research (sampling for qualitative methods, number of CJ, length of CJ, level of detail, sampling, etc). Alternative and combined measures (satisfaction, NPS, emotions, customer effort score, customer churn, average resolution time, etc), integration of multiple metrics and KPIs. Time of CX measure (just after each transaction, end of journey, retrospectively). Assessment on the cumulative nature of CX along the CJ, over time and across multiple interactions. Identification of critical interactions (paint points, break points, moments of truth). Assess the impact of other customers co-presence and co-creation on CX, crowdsourced experiences.	Qualitative methods: in-depth interviews, diaries and e-diaries, observation (shadowing, ethnography and digital ethnography), mystery shopping (service safari). Surveys, models using aggregate time series data or panel data. Web analytics and clickstream data (for e-journeys), UX approaches (Average time on task, Error occurrence rate etc). CRM data, customer support (including complains) data (text, voice, electronic, oral). Web monitoring / social listening data. Technology tools and apps for real-time CX measurement. Longitudinal research. Multilevel analysis for effects at various levels of touchpoint aggregation.
Promises	Assess the consistency of promises across channels and time. Assess the perceived gap between promises and expectations (by customers and by company's staff), between promises and delivery capacity (CX design & implementation). Effects of credibility of promises (from customers' side) and of over (or under)-promising on trust and customer behaviors.	Capture and analysis of internal (brand) data (texts, scripts, etc) from channels and touchpoints. Internal surveys at managerial and employee level. Customer surveys. Web monitoring data.
Experience design and implementation	Assess the CX orientation of the company. Suggest appropriate strategic KPIs. Measure the cost of "bad" CX. Gap between CX design/implementation and expectations. Effect of incremental changes in CX design on customer experience. ROI of CX investment, translate customer KPIs into internal/strategic KPIs.	Adaptation of customer orientation to CX orientation measures. Customer-centric KPIs (Customer Life-time Value, share of wallet, customer base value, value of lost customers etc). UX methodologies (user testing, A/B testing, etc). Trade-off and conjoint analysis for CX value elements. Causal models liking CX to sales.
Channels	Assess channels consistency, measure the "seamless experience". Identify degree of owned channel importance in the CJ relative to 3rd parties. Contribution of each channel to specific objective (awareness, leads, sales, retention, etc). Measure degree of trust to the channel. Patterns of channel preference and use by customer profile and/or contextual variables. Quantify KPIs for channels' audit.	Customer surveys, experimental approaches. Data from various internal sources: logistics, operations, e-commerce, stores, social media, call centers, mobile app etc). Data integration and exploitation via tools like CX Platforms and Customer Data Platforms. Multi-touch attribution modeling. Decision trees, deep learning, machine learning– based methods for channels performance optimization and budget allocation.