

# Performance management in Omnichannel retail

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## 1. Introduction

In the last decade, retailers have been associating an online arm to their brick-and-mortar stores and, gradually, they have started to integrate physical and (multiple) online channels. In parallel, consumers have gradually changed their shopping habits, combining online and offline, in conjunction with the diffusion of new technologies and devices. The result is the so-called “omnichannel” retail, which is supposed to offer customers a seamless shopping experience across all sales channels (Verhoef et al., 2015). In this context, aligning the omnichannel strategy across all company functions is one of the major challenges for managers (Ishfaq et al., 2016). In order to offer a consistent shopping experience tailored to the needs of consumers, companies have to, on the one hand, listen to their potential customers’ demand and, on the other hand, adapt their internal processes and key success factors to this new scenario. Therefore retailers must understand the determinants of success and design an integrated performance management system in this new environment (Adivar et al., 2019).

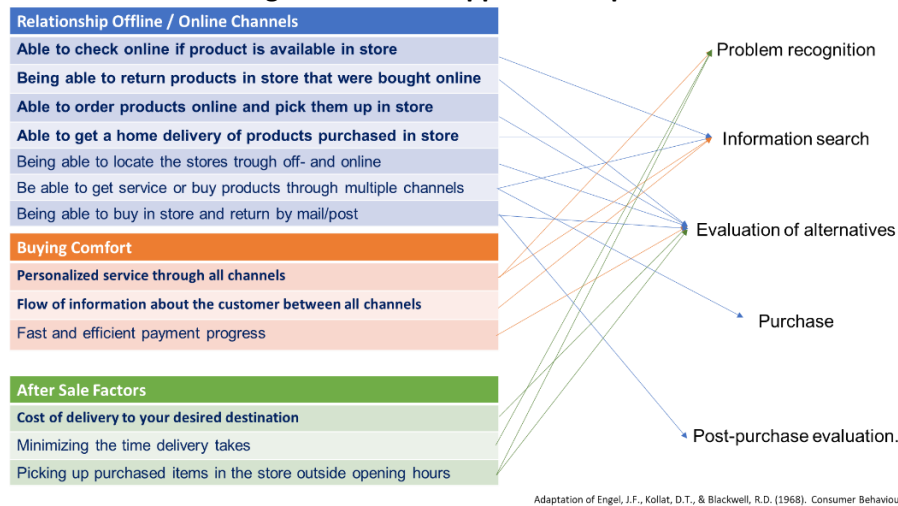
## 2. Connecting the most valued touchpoints by omnishoppers with the EKB model

Consumers are exposed to a relevant number of touchpoints, each with a different impact on the purchase process (Ieva and Ziliani, 2018). Understanding the influence of the perceived differences between the use of the diverse channels is basic because the interactivity between these channels can vary the information of the consumer during the acquisition process through external searches (Singh and Jang, 2020). Finding touchpoints is a difficult task as consumers are increasingly receiving impacts and experiences from companies at the beginning and throughout the purchase process (Lemon and Verhoef, 2016). The growing number of channels and touchpoints is increasing the pressure on retailers to design the omnichannel customer experience (Verhoef et al., 2015). To consider the most relevant factors for organizations facing the challenge of omnichannel from a marketing perspective, it is mandatory to keep in mind the most relevant factors for them in their customer journey (Ieva and Ziliani, 2018). From this point of view, the first step is to detect the most valued touchpoints by omnichannel buyers, and, with this objective, we have analyzed different surveys from rigorous sources, as McKinsey (2016) and PriceWaterhouseCoopers (2016, 2018). Once we have detected and classified these touchpoints, we have compared them with an academically accepted model used to define consumer behavior, the EKB model of Engell et al. (1968), which reflects consumer's decision stages during a sales process. This model allows an integrative vision of a process such as omnichannel, which brings together information and persuasion factors related to the purchase process, as well as the feeling after it. In the next figure, we proceed to show the relationship between the detected touchpoints and the EKB model. According to the EKB model (Engel et al., 1968), the most valued touchpoints in an omnichannel purchase are especially focused on the process of searching for information and evaluating alternatives. Likewise, omnichannel consumers are aware of problems detected in previous purchase processes, a point that causes post-purchase factors to be based on aspects of recognition of previous problems, minimizing their purchase efforts and facilitate the process by acting positively on their experience (Spenner and Freeman, 2012). On the other hand, consumers' satisfaction when buying online is higher than searching in a physical store, since it reduces search time and cost (Kohli et al., 2004).

The relationship between online and offline channels causes that, within the purchase process, consumers compare different providers and evaluate alternatives (Yadav and Pavlou, 2014). It forces to monitor the customer journey, mainly addressing the need to offer a service as much complete as possible, that allows this evaluation of alternatives (Ieva and Ziliani, 2018). Success in

omnichannel depends on the mix of digital and physical experiences (Rigby, 2011) and all phases of the process are important for consumer perception (Engel et al., 1968; Kotler et al., 2020).

**Figure 1. Omnishoppers touchpoints**



Besides the importance for the marketing area, this highly informed consumer profile with many possible purchase alternatives, who continually seeks the best option in those products that he prefers, has relevant implications in the different departments of the company (Verhoef et al., 2015).

Comparing the results obtained by crossing the EKB model with the touchpoints detected in the omnichannel purchasing processes, we can conclude that logistical aspects have a definite value in the omnichannel, being very important the coordination between the different channels to offer coherent and efficient alternatives. Integrating among all of them during customer journey (Hadiprawoto et al., 2020). Processes related to consumer information and respect for their privacy are important, as the consumer is not willing to register in different channels (Kannan and Li, 2017). Systems which integrate the information companies obtain from consumers and integrate this into the purchase process through the organization's available channels will be basic, so collaboration between marketing and information technology departments will be essential in consumer satisfaction (Rust, 2020).

### 3. Operations and Supply Chain

Providing the right product, in the right quantity, in the right quality, to the right place, and at the right time is a key differentiator in omnichannel customer experience. However, meeting customers' needs is becoming increasingly challenging and costly due to the growing complexity of managing omnichannel supply chains (Ishfaq et al., 2016; Difrancesco and Huchzermeier, 2020; Janjevic et al. 2020). As a result, several retailers struggle to make omnichannel profitable. The major determinants of success for an omnichannel retailer rely on the proper management of (i) inventory; (ii) fulfillment decisions; (iii) last-mile delivery; (iv) information, visibility and coordination; (v) product returns; (vi) sustainability aspects.

Inventory management traditionally refers to decisions related to the optimal ordering policy, which has been widely studied in the extant literature (e.g., Boyaci, 2005; Geng and Mallik, 2007; Schneider & Klabjan 2013). In the broader context of omnichannel retail, we often include the concept of "virtual inventory", which allows for virtually limitless assortment (Noble et al., 2005), while minimizing the inventory holding costs. However, this choice could drastically harm retailers in the case they cannot guarantee a fast and reliable delivery to customers. Another relevant aspect for retailers to decide is whether to use inventory carried in one location for serving different channels, or a dedicated center for each channel (Liu et al., 2010; Melacini et al., 2018). Lastly, one should consider the possibility of inventory transshipment from one location (e.g., a distribution center) that carries

the item versus another location that does not, in order to timely fulfill customer demand (Torabi et al. 2015; Govindarajan et al. 2018).

Order fulfillment refers to the processing and delivering of customers' orders. There exist different options available for retailers to fulfill customers' orders. Ishfaq and Raja (2018) offer a comprehensive framework for the order fulfillment process and identify four major alternatives: (i) distribution centers (DCs), which are used to fulfill both in-store and online orders through a unified warehouse; (ii) dedicated direct-to-consumers fulfillment centers (DTCs), which fulfill online orders from dedicated centers direct-to-customer; (iii) retailer stores, which fulfill both in-store and online orders using store inventory; and (iv) vendors, which directly fulfill online orders without storing inventory at any stage of the supply chain. On the one hand, centralized facilities like DC and DTC imply significant operations efficiencies, a wider assortment, and lower labor costs (labor cost in DC is usually lower than labor cost in retail stores). On the other hand, retailer stores allow to leverage the already existing network facilities, reduce the price markdowns, and improve delivery speed while decreasing delivery cost. Particularly delivery time and delivery cost represent two key factors in the omnichannel customer experience (Hubner et al., 2016).

Last mile delivery is often the most complex and costly stage of operations (Bergmann et al., 2019). To optimize the cost-service level trade-off, new trends have recently emerged, such as BOPS (buy online, pick-up in store), ROPS (reserve online, purchase in store), STS (ship-to-store), and SFS (ship-from-store) (Jin et al., 2018). The main differentiating characteristic among these alternative solutions is represented by the actor who covers the last mile, i.e., the customer collecting the product (in store or at another pick-up point) vs. the delivery at the customer's house. In the first case, the burden of the last mile delivery is shifted to the customer, although he usually enjoys more flexibility in terms of collection points and timeframe, as well as delivery fee reduction. Moreover, in the case of store pickup, retailers could benefit from the "cross-selling" effect of customers visiting the store to pick up their order and ending up buying additional products there (Gallino and Moreno, 2014).

Omnichannel supply chains make extensive use of technologies, both in terms of automation (e.g., automatized distribution centers and digital technologies for improved in-store experience) and in terms of visibility and coordination throughout the stages of the supply chain (e.g., sharing real-time inventory availability). Omnichannel retailers must collect and process information on customers shopping habits as well as on product demand. Retailers should also be able to provide consistent information to customers through different channels (Gao and Su, 2017), which becomes complex especially in the case of shared resources across channels (e.g., the same inventory is used to fulfill orders from both in-store and online customers; Difrancesco et al., 2021).

Product returns represent a big burden for omnichannel retail. Products, may they be purchased online or in-store, can be returned by customers either directly in-store/pickup points, or through a scheduled home pickup. Moreover, returns may be subject to a restocking fee and/or shipping charge: although customers demand lenient policies, tight control of returns is required by the high processing costs and by product value erosion, especially for those products that lose rapidly their value (e.g., fashion and electronic industries) (Difrancesco et al., 2018). Moreover, omnichannel retailers also face the increased risk of fraudulent returns and customers' opportunistic behavior (Shulman et al., 2011). Finally, similarly to the in-store pickup for the last mile delivery, in-store returns offer the opportunity of cross-selling effect.

In the last decade, the growth of online and omnichannel retail on a global level has raised increasing attention towards sustainability aspects. In particular, concerns about pollution and CO<sub>2</sub> emissions due to the extra transportation and packaging materials have emerged (Rai et al., 2019). More recently, attention has been posed to social aspects such as working conditions and long working hours that may affect carriers and distribution centers workers (The Guardian, 2016). Furthermore, latest scandals involving retailers destroying large quantities of unsold products has raised both an environmental and a social issue (The New York Times, 2019).

All in all, it is strictly required for retailers to deeply understand the determinants of success of omnichannel retail and to accurately manage all those operational and strategic aspects that

contribute to a successful customer experience. In order to achieve this, it is key to design the proper omnichannel performance management system (Adivar et al., 2019) in an omnichannel environment.

#### **4. Performance measurement**

Using an approach inspired by the 5 step Strauss and Corbin methodology (1998), we analyse the specificities of performance measurement and management in the retail context. Causal and External contexts show respectively why and how Performance Measurement System (PMS) is structured and operates in a retail organization, which subsequently generates actions and interaction that have consequences on PMS shape and usage.

With regards to the *Causal* context influencing the choice of a PMS, the sophistication level of the operations of the retail industry are associated with a requirement to craft/adopt a PMS structured around simple and operational metrics. Retail is an industry which is highly dependent on day-to-day operations and has remained very basic in its performance measurement and management system. Both explain the pre-eminence of revenue and cash management as well as basic operations KPIs. Second, a rigid performance management reporting structure and its implementation process favour the structure of a PMS around a set of quantitative and financial metrics which must be meaningful for different populations: company personnel (e.g., compensation schemes) but also external communities such as sceptical shareholders and financial analysts. One of the missions of this set of metrics is to personify an 'ill-defined' notion of performance, therefore be holistic enough to embody what internal and external differentiated populations perceive as being 'performance' such as 'profitability' concept for example. Third, the importance of companies' growth model is another driver to adopt and use quantitative operational and financial metrics' structured PMS. For example, both the rigidity and "reactor" (Miles and Snow, 1978) type of companies' growth models are associated with the prominence of operational and financial metrics in the PMS. Finally, the importance of the instability of the Economic Environment is another driver to adopt and use a PMS dominated by quantitative and financial metrics (e.g., quick availability and the flexible nature of these metrics to provide industry benchmarks, which can reassure sceptical stakeholders in a fast moving and unstable environments).

The *Organizational* context refer to a particular set of internal characteristics and circumstances in which a phenomenon occurs (i.e., PMS). They are related to an organization's internal environment in which a PMS is designed, implemented, and operated. With regards to this dimension, corporate history, and culture influences performance management practices towards the embodiment of performance through traditional operational and financial indicators as customary industry benchmarking data. As demonstrated by Cho (2009), the higher profile of companies not only makes them powerful, but also exposes them to pressures. Therefore, the formal sets of Non-Financial Performance Measures (NFPMs) are often not primarily introduced for performance evaluation. NFPMs are also developed for industry benchmark purposes, through a process of approval seeking from groups in society informed by Strategic Legitimacy Theory (Suchman, 1995; Hybels, 1995) and because of isomorphic mimesis informed by Institutional Theory (DiMaggio and Powell, 1983). The performance policy of the Corporate Structure and that of the dominant coalition (e.g., board members) along with their stability over time are causal conditions for the structure and the persistence of a PMS. These are associated with the stability over time of the arbitration, which decides on the formal balance of FPMs and NFPMs in the PMS. The lack of clarity between 'performance' and NFPMs for managers enhances the prominence of FPMs in the PMS because they are perceived to be more objective and fairer in performance evaluation, in addition to being used for compensation purposes.

*External* Context is related to the organization's external environment that impacts the design and the operation of a PMS. Intervening Conditions are general conditions that influence the phenomenon and the strategies that a company can adopt. Intervening conditions are conceived as environmental conditions that surround companies and have a direct impact on the phenomenon and a company strategy. The modification of the competitive environment comes mainly from adapting to

customers' changing purchasing and store habits, reaction to corporate public image, and purchasing power change (if not fostered by a pandemic...). The condition related to direct competitors involves a reaction to customer behaviour modification. Because of the pressure placed on companies for return on investment these modifications in the competitive environment generate stress on financial information which explains the prominence of FPMs in companies' PMS. In tightened and uncertain economic conditions, stakeholder's pressure for returns (i.e., the market, shareholders and financial analysts) causes organizations to focus on cash flow and revenue generation because these are perceived by the environment as the 'rational and rigorous' way to evaluate performance (e.g., financial analysts). This pressures companies to adopt a PMS that can provide evidence that it controls performance in the way expected by stakeholders. Consequently, a decoupling policy is adopted which consists of the development of more rigorous and centralized formal financial and non-financial metrics able to make performance management accepted by the norms set by their 'environment' (i.e., powerful stakeholders: the market, shareholders, and financial analysts). Formal performance system is complemented by an informal system composed of financial and operational metrics which evidence the short term returns that stakeholders require. The pace of this decoupling process depends on company culture and industrial relations.

Management implements a certain number of practices (i.e., management strategies) in response to the above-mentioned Causal, Organizational and External conditions. These are called 'Action/Interaction Strategies' Quantitative and qualitative metrics. They can easily be translated into indicators which emerge as metrics used at different operational levels that are perceived as more meaningful than traditional financial ones. This is because they are regarded as 'translations' of operational metrics, which are 'natural' embodiments of performance. This means that, for performance information upload to higher management levels, NFPMs are perceived as less tangible 'secondary information' deformed by the 'finance' prism of their translation. This translation of NFPMs into FPMs is a current practice to report performance information to top management because the latter are used for compensation purposes. NFPMs development is associated with a legitimacy seeking strategy (e.g., improving public image) through isomorphic mimesis (DiMaggio and Powell, 1983). This development is correlated with a means of performance information crosscheck for sceptical and demanding stakeholders (e.g., financial analysts, shareholders, community, and regulators) who do not trust prominent traditional FPMs. To some extent, NFPMs are also perceived as 'luxury' performance measures, which can be developed when a company is in a comfortable financial situation. This development is also a strategy implemented at companies where traditional costs saving initiatives have been used and are reaching their limits, but also at companies who wish to limit subunits 'costs-saving' competition. The balance between FPMs and NFPMs in the PMS depends on the behaviour that the hierarchical level of management wants to produce in performance assessment.

Consequences and outcomes arising from the different contexts above are as follows. Industry analysis with regards to performance evaluation suggests that financial performance measures remain dominant and that although non-financial performance measures are used, these are often de-coupled from the key performance measures which remain traditional at the highest levels of management. The dominance of financial performance measures appears to be due to the nature of the industry, its sensitivity to unstable economic environment, the competitive environment impacted by changes in customer behaviour, shareholder, and market pressure. The development of non-financial performance measures appears to primarily be a response to wider stakeholder pressures of the environment. In response to these pressures, companies appear to develop non-financial performance measures to adopt legitimate performance measures in the eyes of wider stakeholder groups thereby supporting isomorphism and de-coupling as found in the literature of Institutional Theory (DiMaggio and Powell, 1983).

## **References**

*References available upon request.*