

Stockholm School of Economics
Master Thesis in Business and Management

The Magic of The Metrics

Multiple case studies on the utilization of business performance metrics in channel
integration development and implementation

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Abstract

Nowadays, retailers, especially in the FMCG sector, are applying multi- and omni-channel retailing to satisfy customers' dynamic needs, which requires them to address channel integration (CI) 's organizational challenges. The literature identifies a strong linkage between business performance metrics (BPM) and CI organizational challenges. Therefore, this study aims to gain an in-depth understanding of BPM utilization in CI development and implementation to tackle CI organizational challenges. This study uses the multiple case study methodology with polar sampling and replication logic to analyze qualitative data inductively. Then, we draw relationships between the data structure's components using a conceptual framework adapted from Martin & Eisenhardt (2010) and various BPM literature. Our findings show that four types of BPM are used in establishing CI, identifying CI mechanisms, evaluating CI performance, and improving CI mechanisms. These metrics are chosen based on eight company- and channel-related dimensions. Furthermore, this study's final framework depicts a processual view of CI development and implementation. These findings contribute to CI and BPM literature by introducing CI as an intra-organizational activity, providing empirics of utilizing different types of metrics within an organization, demonstrating metrics as a linkage between strategy and operations, and establishing a path to connect CI literature with BPM literature. Finally, this study provides a guideline for retailers to embed metrics in their CI development and implementation.

Keywords

Channel Integration, Business Performance Metrics, Intra-organizational Collaboration, Multi-channel Retailing, Omni-channel Retailing

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Glossary

Concept	Definition
Multi-channel Retailing	A retail format in which a retailer markets and sells their offerings via more than one channel with minimum interaction between the retailer and the consumer and minimum controlled integration between the channels (Liu et al., 2018; Beck & Rygl, 2015).
Omni-channel Retailing	A retail format in which a retailer markets and sells their offerings via more than one channel to optimize customer experience and channel performances through synergetic management or integration of the channels (Verhoef et al., 2015; Shen et al., 2018; Chen et al., 2018).
Channel Integration (CI)	The level of coordination among multiple channels to offer a seamless customer shopping experience and firm synergy (Zhang, 2018; Cao & Li, 2015).
Business Performance Metrics (BPM)	Measures to inform the management about the achievement of strategic or tactical objectives (Okes, 2013).
Consumer	The end-customer or a private person who buys and intends to consume the retailers' product.
Customer	The entity that the marketing and sales channels are selling the retailer's product to. Could be either an individual (consumer) or a business (wholesaler).
Webrooming	A shopping behavior in which consumers visit online stores before purchase at brick-and-mortar stores, has been depicted as the most extended and popular cross-channel behavior (Flavián et al., 2016).
Showrooming	A consumer first visits a physical store to inspect a product and, if she likes it, buys it from an online seller at a lower price (Jing, 2018).

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1 Introduction

This chapter answers what this study is about and why it is important (1.1). Subsequently, the scope (delimitation) is stated along with the specific research questions that this study aims to answer (1.2). The section is concluded with the expected contribution (1.3) and the structure of the report (1.4).

1.1 Background

Due to technological advancement and dynamic consumer behavior, retailers have evolved their channels to market and sell their offerings (Shankar et al., 2021; Yrjölä et al., 2018). Retailers had entirely-physical channels until the late 1990s (Mahadevan & Joshi, 2022) when web stores started gaining adoption (Gauri et al., 2021). Since then, retailers have continuously adapted digitalization technologies to their contexts, and numerous physical and digital marketing sales channels have emerged. In the 2010s, multi-channel and omni-channel retailing were introduced as retailers attempted to integrate activities in their different channels (Juaneda-Ayensa et al., 2016). In parallel, literature on channel integration (CI) was mushrooming and resulting in the identification of CI benefits such as increased loyalty (Cao & Li, 2015; Gao & Huang, 2021) and repurchase intention (Lee et al., 2019) as well as CI operational and organizational challenges.

Numerous studies have analyzed the mitigation of CI operational challenges (Saghiri & Mirzabeiki, 2021; Bijmolt et al., 2021; Wollenburg et al., 2018). However, findings on CI organizational challenges have remained limited. For example, organizational silos were said to inhibit CI due to sub-optimal goal attainment and narrowed vision (Gerea & Herskovic, 2022; Grimonpont, 2016; van Heesjwik, 2021). Nevertheless, they do not discuss the management of CI within a retail company, much less go beyond high-level and generic recommendations such as "be more agile" and "break down organization boundaries". With this in mind, a more in-depth knowledge and understanding of CI management would be beneficial for several reasons. First, it will bring a new perspective of seeing CI as a process rather than a result. Hence, it further equips retailers with academic insights that are closer to retailers' day-to-day business. Second, it will provide a foundation for discussing CI as an organizational activity. Thus, it opens the possibility of inter-field collaboration between marketing and

organization fields to identify potential actionable solutions for CI organization challenges.

Motivated by the above reasons, we first identified that there is a strong link between CI organization challenges and BPM (Liu et al., 2018; Ailawadi & Farris, 2017). Then, we figured that CI could be seen as both strategic maneuvers and operational activities (Hajdas et al., 2022; Neslin, 2022). We also figured that BPM link a company's strategy and operations (Otley, 1999; Kaplan & Norton, 2008; Eckerson, 2010; Turban et al., 2015). With this in mind, there is a possibility to borrow concepts from BPM to shed light on CI management, which will be valuable to advance the literature on CI organizational challenges.

1.2 Purpose, Scope, and Research Question

The purpose of this study is to integrate concepts and frameworks of BPM to identify CI management within a retailer for tackling CI organizational challenges. This purpose is motivated by what previous literature identified, which is further described in section 2.1.4. This study is scoped and delimited into the fast-moving consumer goods (FMCG) retail industry, focused on two international retailers based in Sweden and operating in Europe. This study has been performed using the multiple case study methodology to gather and analyze data to answer the following research question:

“How are business performance metrics used within the development and implementation of channel integration in retail companies?”

1.3 Expected Contribution

The study aims to contribute both theoretically and practically to the field of retail. The theoretical contributions are 1) illuminating key processes of CI management from its development to implementation, 2) proposing a new perspective of discussing CI as a process rather than a mere result of an intra-organizational activity, 3) supporting the applicability of multi-level, category, perspective, data-type, and function of metrics concepts within CI in retailing settings, and 4) explaining how BPM are used in CI development and implementation. From a practical standpoint, this study intends to give retailing companies academic insights about the CI management process and the

types of BPM to utilize in each step of the process. Furthermore, this study also attempts to provide recommendations for optimizing CI key processes.

1.4 Structure of The Report

We structured our report using linear-analytic structures (Yin, 2014). The report starts with an introduction to the research topic and its rationale (Chapter 1). Then, the report justifies the rationale further in the literature review along with what the prior research has known about the topic (Chapter 2). The report continues with details about the chosen research methodology (Chapter 3) and the description of empirical findings of the two polar cases (Chapter 4). The result of the cross-case analysis is then presented (Chapter 5). Finally, the report ends with the conclusions and implications for the topic (Yin, 2014).

2 Theory

The use of theory in this research is two-fold. First, a literature review is conducted to identify the research gap (2.1) within multi- and omni-channel retailing (2.1.1), channel integration (2.1.2), and business performance metrics (2.1.3) area. This literature review also motivates our research question. Second, a literature review is performed to answer the research question (2.2). Previous findings on types of business performance metrics (2.1.1) and intra-firm collaboration (2.1.2) were selected to build a conceptual framework (2.1.3) that helps the analysis process of this study.

2.1 Identifying the Research Gap

2.1.1 Multi-channel and Omni-channel Retailing

Retailers are motivated to operate in both physical and digital environments by the opportunity to capture unique advantages from each realm (Burt & Sparks, 2003; Hagberg et al., 2016; Fuller et al., 2022) and to cater to dynamic consumer preferences (Yrjölä et al., 2018; Nüesch et al., 2015; Verhoef et al., 2015). This phenomenon has encouraged academics and practitioners to investigate different settings of their online and offline sales channels configuration. Amongst the most prominent ones are multi-channel and omni-channel retailing.

Multi-channel retailing is defined as “a set of activities through which retailers sell products or services through more than one channel” (Liu et al., 2018). Prior literature agrees that in multi-channel retailing, retail channels, such as offline stores and online websites, are treated separately without any overlap to achieve channel objectives (Verhoef et al., 2015). Channel management in multi-channel retailing is also handled by different units within the organization so that each unit can focus on maximizing sales or experience from each channel rather than the overall sales and experience. Beck & Rygl (2015) exemplifies multi-channel retailing as a situation where consumers can only redeem coupons in a retailer’s specific channel but not across all retailers’ channels. This example is then used to derive defining dimensions of multi-channel retailing: 1) No interaction can be triggered by consumers, 2) No integration is controlled by retailers, and 3) More than one channel or all channels are widespread.

Verhoef et al. (2015) define omni-channel as “the synergetic management of the

numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels are optimized.”. Shen et al. (2018) define omni-channel as “a unified approach that manages channels as intermingled touch points to allow consumers to have a seamless experience within an ecosystem.”. Furthermore, Chen et al. (2018) describe “omni-channel as a synchronized channel-management model that integrates all available channels and presents a single face to customers.”. From these definitions, it can be concluded that, in omni-channel retailing, retailers are required to create synergies among their sales channels to gain advantages of providing a seamless experience to their customers, such as reduced search cost, increased convenience, and improved satisfaction in omni-channel (Cao & Li, 2015; Manser Payne et al., 2017; Säfwenberg, 2014).

Therefore, existing literature distinguishes multi- and omni-channel retailing based on the degree of integration among channels (Hajdas et al., 2022), which impacts other aspects such as channel transitions, customer experience, information systems, channel management, incentive schemes, and logistics (Lehrer & Trenz, 2022). Omni-channel requires improvement from offering a segmented and inconsistent shopping experience to a seamless and consistent shopping experience. Intuitively, the success of omni-channel retailing depends on how integrated the retailer’s channels are (Cao & Li, 2015; Gao & Huang, 2021; Frassetto & Miquel-Romero, 2017). Therefore, it is crucial to discuss the effort of synergizing channels, which will be referred to as CI moving forward.

2.1.2 Channel Integration

Zhang (2018) and Cao & Li (2015) define CI as "the degree to which a retailer coordinates its multiple channels to offer a seamless shopping experience to its customers and to create synergy for the firm.". The first goal, seamless shopping experience, of the definition takes on a consumer perspective. Past literature taking the consumer perspective commonly discusses CI based on the object of integration: promotion, pricing, product information, transaction, order fulfillment, customer service, and reverse logistics (Oh et al., 2012; Das & Chowdhury, 2012). This perspective also posits that retailers should provide consistent promotion, pricing, product information, and transaction across all channels. It also means that retailers

should allow their consumers to pay and pick up flexibly in any retailer's channels. Lastly, retailers should have integrated customer services in all their channels to solve any purchase-related problem regardless of where or when the purchase occurred. To date, the consumer perspective of CI has been well-researched within literature discussing the consumer-facing area of the marketing field (Frasquet & Miquelromero, 2017; Gao & Huang, 2021).

The second goal is related to a retailer perspective. Through synergies, retailers can achieve economies of scale, increase growth, and improve profitability due to increased customer trust, loyalty, and greater cross-selling opportunities (Cao & Li, 2015; Grimonpont, 2016). Wu & Wu (2014) identify further benefits of an integrated cross-selling strategy for retailers with digital and physical channels when complemented with product selection, channel availability, and scalability. However, to gain the aforementioned CI benefits, retailers need to manage CI appropriately (Melero et al., 2016; Cocco & Demoulin, 2022). Lee et al. (2019) also highlight the importance of having high-quality CI by providing strong evidence that CI quality positively influences customer engagement. In turn, it leads to higher repurchase intention and positive word-of-mouth. With this prior research in mind, the benefits of channel integration from the retailer perspective are already well-researched both quantitatively and qualitatively.

The development and implementation of CI remain a challenge for most retailing companies (von Briel, 2018; Iglesias-Pradas et al., 2022; Grimonpont, 2016). There has been numerous research exploring various challenges of CI, such as effective supply chain and logistics, integrated analytics systems, implementation of seamless customer experience strategy, and organization aspects (Jocevski et al., 2019; van Heeswijk., 2021; Hajdas et al., 2022; Piotrowicz & Cuthbertson, 2014; Larke et al., 2018). Nevertheless, the discussion under organization aspects has been the most debated (Gerea & Herskovic, 2022), which includes challenges related to 1) organization structure, 2) performance metrics, and 3) investment and resource allocation.

Traditional silos have been mentioned as a CI challenge (Gerea & Herskovic, 2022). When each channel is governed by different managers and operationalized by dedicated employees, the team is bound to the channel's business activities. Moreover,

using this structure, each channel team is responsible for channel-specific measures and therefore encouraged to optimize the channel's profit despite cannibalizing other channels (Grimonpont, 2016). Ailawadi & Farris (2017) mention the importance of changing the mindsets of marketers and salespersons from competing to complementing each other to tackle the barrier inherent in the silos.

Closely related to structure, performance metrics are also a complex CI challenge to address (Liu et al., 2018; Cocco & Demoulin, 2022). Due to the shift in mindsets and ways of working, CI requires new metrics to inform the performance of CI (Ailawadi & Farris, 2017). Cocco & Demoulin (2022) build on this argument by referring to the "Gestalt" and suggest measuring the full integration rather than analyzing its separate constituent channels in isolation. It is aligned with the findings of Peltola et al. (2015), which emphasize the disadvantages of channel-specific metrics by mentioning their effect on employees in the form of no incentive to utilize omnichannel service potential. Furthermore, Yrjölä et al. (2018) argue that, for CI to occur, it is vital to evaluate channels holistically, not just in terms of their individual revenue-generating abilities. Time is also an element to consider for defining CI metrics considering the stacking lagged effect of integration on customer experience and economic measures. Therefore, it might be wise to utilize long-term performance indicators to capture the accumulated benefit from satisfied customers (Zhang et al., 2010; Liu et al., 2018).

Finally, CI requires heavy investments that, without a clear strategic purpose, can quickly result in an unbeneficial or even counterproductive impact (Yrjölä et al., 2018). Investment is needed for revamping systems and redesigning capabilities (Gerea & Herskovic, 2022). Systems such as information technology and supply chain management are the core enablers of channel integration (Peltola et al., 2015; Saghir et al., 2017). For example, only with integrated back-end and front-end information systems can consumers have unified product-pricing information on both websites and offline stores. Only with responsive supply chain databases can channels get accurate procurement data to inform, for example, assortment availability and delivery status, to consumers. However, there is often no short-term return on investment (Grimonpont, 2016). Unsurprisingly, the lack of willingness to invest or the high-risk aversion level of top-level managers is mentioned as a challenge for initiating and implementing CI (von Briel, 2018). Even when there is a willingness to invest, without the correct metrics, only specific channels will be prioritized over

others. It results in imbalances in resource allocation, typically in project financing and staff deployment (Salvietti, 2022).

In conclusion, CI can be seen from both a consumer and retailer perspective. Past literature taking the consumer-centric perspective has emphasized the importance of consistent objects that can be perceived and experienced by customers during their purchase journey. Meanwhile, a key takeaway from the retailer-centric perspective is that CI remains a challenge for retailers despite its benefit. Although organizational aspects have been mentioned as a hindrance to CI, more explanation of the process of CI within an organization is needed to provide “beyond surface level” understanding and recommendation.

2.1.3 Business Performance Metrics

Retailers use metrics to navigate the retail industry, where the metrics can be used to achieve innovation and improve execution (Jocevski et al., 2019; Fisher & Raman, 2018; Rooderkerk et al., 2022). Specifically, the utilization of metrics improves the decision-making process within the company and enables new methodologies for value creation. For example, retailers use metrics for experimentation to discover needs and enhance the performance of products or services (Fosso Wamba et al., 2015; Garcia-Perez et al., 2019). Metrics are well-discussed by scholars, especially in their central role in linking the strategy and operations of an organization within the field of performance management.

Otley (1999) provides a prominent performance management framework based on five central questions: 1) What are the key objectives of the organization and how to evaluate them? 2) What are the strategies and plans to achieve the key objectives? Also, what are the processes and activities required to execute them? How to measure the activity performances? 3) What are the targets of performance level? How to set them? 4) What incentives and punishments are related to the target accomplishments? How to design them? 5) What is the information within the feedback and feed-forward loops?. This framework explains the relationship among an organization's objectives; its strategy, plans, and activities; and the metrics used to evaluate the achievements of objectives and to measure the performances of strategy, plans, and activities. Furthermore, it also describes the use of performance metrics as an aid for goal setting, reward systems, and learning mechanisms.

On the same note, Kaplan & Norton (2008) proposes a closed-loop management system framework that consists of five stages arranged cyclically. The first stage is "develop strategy", where the management defines the organization's vision, mission, and values and formulates strategy. The strategy is then translated into themes in the second stage, "translate strategy". Each theme has metrics to achieve and consists of several strategic initiatives to pursue. Once the initiatives have been prioritized based on their potential to achieve the metrics, the management moves to the third stage, "plan operations". In this stage, more detailed actions within each initiative are laid out, along with the process metrics to evaluate the actions. The authors suggest displaying the metrics on a dashboard where the management can review them in the fourth stage, "monitor and learn". With the knowledge from reviewing the metrics, the fifth stage, "test and adapt strategy" is performed, resulting in analysis to improve the strategy made in the first stage, closing the loop.

A more recent framework is the four-step process of performance management framework (Turban et al., 2015; Eckerson, 2010), which puts metrics even more explicitly. Integrated data and metrics reflect performance across all dimensions of the organization. Hence, the information contained serves as a foundation for strategy development and execution implementation, as illustrated in Figure 1. There are four steps that an organization performs cyclically to optimize its performance and achieve its goal: 1) strategize, 2) plan, 3) monitor/analyze, and 4) act/adjust. The first two belong to the "strategy" phase, while the rest belong to the "execution" phase.

During the "strategize" step, goals and objectives concerning the organization's strategy are defined and operationalized as measures or key performance indicators (KPIs). Knowing what to achieve, the organization starts the "plan" step. Here, plans are developed, and resources, such as money and people, are allocated accordingly to execute the plan. Tensions are commonly emerging in this step due to the budgeting process's tendency to compartmentalize the organization into departments, rather than enforce collaboration amongst them. Along with the execution of the plan, the "monitor/analyze" step is performed. The focus here is to see the achievement of the KPIs, which inform whether the plans are adequate to achieve the goals, using tools such as dashboards and reports. This step is aligned with Hemel & Rademakers (2016) view on customer-centric organizations, which they describe as "learning organizations" and "learning involves finding out what works and what does not".

With a clear sense of progress, corrective actions or adjustments are then formulated in the bridge between this step and the next phase. Metrics are built on data points, which need to be processed into information, and formalized into insights before finally resulting in action points that will be performed in the "act/adjust" phase (Turban et al., 2011).

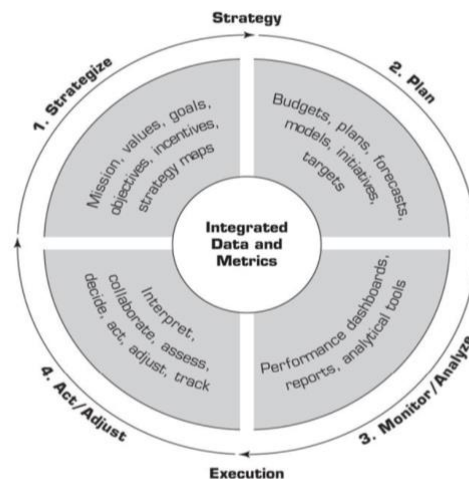


Figure 1. Business Performance Management framework (Turban et al., 2015; Eckerson, 2010)

2.1.4 Research Gap

The literature review suggests that multi- and omni-channel retailing has been well-discussed by the previous literature regarding their definition and their key distinguishing factor, channel integration (CI). Researchers have also identified CI's benefits and the various challenges that retailers face in implementing CI. Amongst the challenges, findings on organizational challenges require further elaboration on CI management within a retail organization. Considering a focal relationship between metrics and other aspects of CI organizational challenges, this study aims to identify the connections between retailers' BPM and CI management to fill the research gap within the field. Borrowing the identified utilization of BPM in performance management, which suggests linkage among metrics, strategy, and action, this study focuses on the use of BPM in CI management in retail companies. Figure 2 illustrates the research gap that this study addresses.

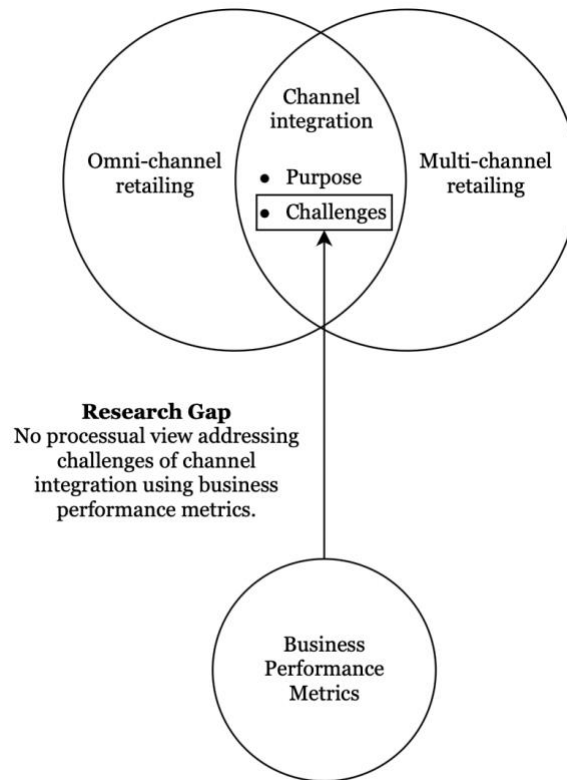


Figure 2. Research gap

2.2 Answering the Research Question

2.2.1 Types of BPM

Business performance is complex and multidimensional (Richard et al., 2009). There needs to be more than a single metric to measure performance to give managers comprehensive information (Ailawadi & Farris, 2017). Therefore, a triangulation of multiple metrics is suggested, for example, by constructing a metrics portfolio. When composing a portfolio of metrics, which includes the selection of metrics itself, a company should consider the nature of the company's business environment, business goals, business strategy, and sector in which the company is operating (Garcia-Perez et al., 2019; Malina & Selto, 2004). Specific to retail companies, Gunawan et al. (2008) identified that business size and format significantly affect the choice of metrics. With this in mind, the following sections summarize ways to classify the different metrics types that could compose a portfolio of metrics: 1) hierarchy of metrics, 2) categories of metrics, 3) perspectives of metrics, and 4) data type of metrics.

Parida et al. (2003) compose a framework that illustrates the use of metrics at multiple

levels within a company. First, corporate metrics are derived from corporate strategies. These metrics represent the objectives of the strategic management level (Chirumalla et al., 2013) and are then used to define business unit-level (BU-level) metrics at each department. Therefore, the BU-level metrics that measure the performance of tactical management are all connected to corporate strategies. Chirumalla et al. (2013) further add functional- and project-level metrics below the BU-level ones, which are used within the operational management level. Functional-level metrics indicate the performance of BU's functions, such as marketing and design. In contrast, project-level metrics indicate the performance of specific cross-functional projects that the functions within BUs are pursuing. The presence of project-level metrics encourages synergies between different BU functions so that they focus more on the project's goal despite the complexity of working in a cross-functional setting.

Due to multi-faceted company goals, a company has to measure metrics across various categories to gain a comprehensive understanding of the company's performance. Chirumalla et al. (2013) develop a performance metrics framework that consists of customer focus-related, process-related, finance-related, service-related, and learning-related categories. Examples of metrics used in retail companies are Sales and Conversion Rate (Kumar & Venkatesan, 2021; Petersen et al., 2009), Brand Awareness (Rajagopal, 2008), Net Promoter Score (Eger & Mičák, 2017; Baehre et al., 2022), Customer Retention (Gupta & Ramachandran, 2021), Customer Lifetime Value (Kumar, 2010; Petersen et al., 2009), Store Convenience (Mishra & Vishvas, 2018), and multiple-senses perception measures (Gahler et al., 2022).

Metrics can also be distinguished from the outcome or process perspective. Since CI can be classified as either a business process or a project, depending on its time frame, it is essential to look for the definition of outcome and process metrics from business process management and project management. In business process management, Okes (2013) defines *outcome metrics* as measurements that "focus on results at the end of the process" and *control metrics* as measurements that are "used to adjust or stabilize the performance of the process.". In the project evaluation framework (Gestrøm-Rode et al., 2022), outcome and process metrics are proposed to evaluate a project holistically. Outcome metrics evaluate the effectiveness of a project in achieving its targeted output or impact. It relates to project success or "doing the right

thing". Meanwhile, process metrics assess the mechanisms and efficiency of project management to explain the relationships between the project's input and output. In other words, it measures project management success or "doing things right".

Finally, there are quantitative and qualitative metrics. Quantitative metrics are those with a numerical value that results from calculating a particular formula. Recalling the categories of metrics, financial-related metrics, such as revenue, exemplify quantitative metrics resulting from the multiplication of price with the number of transactions. Florès (2014) mentions the total audience of a campaign and the number of clicks as examples of quantitative metrics within digital retail channels. On the other hand, qualitative metrics are more descriptive metrics, such as textual value, used to give a more detailed understanding about the results of a specific process like consumer perception of a campaign.

2.2.2 Intra-firm collaboration

According to the definition of CI, creating synergies between the retailer's channels to gain certain benefits for the retailer is the essence of CI. Synergy can be achieved when two or more channels establish a linkage in their businesses, for example, through intra-firm collaboration (Tsai, 2000). Intra-firm collaboration is an event of two or more business units within a company that is focused on a particular offering, segment, or market area (Chandler, 1962) is collectively performing an activity to enhance the company's value creation (Martin & Eisenhardt, 2010; Helfat & Eisenhardt, 2004). It can also be described as an activity in which different business units shape relationships between them to produce a particular outcome. In a model developed by Kretschmer & Puranam (2008), there are two main factors affecting the likelihood of intra-firm collaboration: 1) the perceived value of collaboration and 2) the ability to collaborate.

The first factor relates to the benefit the BUs can potentially gain from collaboration, which can be cost or revenue synergies. For example, Walmart stores are utilized as both venues for consumers to shop physically and inventory warehouses for consumers to shop digitally (W.T. Lim & Singh Srai, 2017). This collaboration between Walmart's offline and online sales channels enables them to reduce costs by sharing the company's infrastructure. On the same note, when two or more business units share similar goals and connected performance evaluation measures (De Clercq et al.,

2011; Bateman et al., 2002), they are more likely to perceive the same value of collaboration. Hence, shared metrics and goal congruence can be considered motivating agents that influence the formation of intra-firm collaboration.

The second factor relates to how much shared knowledge, skill, and capabilities the different units have. The more similar the units, for example, the same customer type or distribution channel (Nocker et al., 2016), the more shared knowledge, skill, and capabilities these units have, and the more likely they are to develop inter-unit linkages (Tsai, 2000). For example, when two units have the same customer type, e.g., consumer or industrial, the units can share knowledge about a particular behavior of that customer type with each other, increasing their abilities to collaborate. On the same note, when two units distribute their products through wholesalers, they can discuss best practices to nurture relationships with their wholesalers.

Regarding the process of intra-firm collaboration, the literature has identified two streams of process based on the center of collaboration: corporate-centric and business unit-centric (BU-centric) processes. Martin & Eisenhardt (2010) summarizes the contrast between the two perspectives using origin, shaping, choice, and implementation categories. The corporate-centric process is initiated by a corporate executive such as the CEO. In contrast, the BU-centric process is started by a person in a business unit who was "engaging in their own specific business unit activities when they accidentally stumbled upon collaborations that were potentially helpful to the unit.". The corporate-centric process continues upon the decision to collaborate by appointing participating units (choice) and then heavy planning of collaboration mechanisms (shaping). On the other hand, the BU-centric process progresses by experimenting with the collaboration activities to develop potentially optimum collaboration mechanisms (shaping) and then identifying participating units that can support the mechanisms (choice). Lastly, the corporate-centric process implements the collaboration activities by delegating them in a lateral process, meaning that the people performing the collaboration do both intra-firm collaboration activities and other tasks from their line function simultaneously. In contrast, the BU-centric process happens in a reconfigured team consisting of people who only perform collaboration-specific activities.

Despite the team configuration, the key in the implementation stage of intra-firm

collaboration is enabling learning among the collaborating units. Therefore, understanding a firm's intra-firm knowledge-sharing and absorptive capacity is valuable. Knowledge-sharing is a process of externalizing and internalizing knowledge from one entity to another (Zheng, 2017). Knowledge-sharing can occur between units within a firm through improved communication and informal social interaction (Tsai, 2002). When successfully performed, knowledge-sharing results in an absorptive capacity, enabling the units to "identify, acquire, and leverage relevant knowledge to support the attainment of organizational objectives" (Ali et al., 2018). With high absorptive capacity, intra-firm collaboration performance is likely to improve (Costa & Monteiro, 2016; Biedenbach & Müller, 2012).

2.2.3 Conceptual Framework

The literature has inspired the development of a conceptual framework (Figure 3) to address the research question. Due to the inductive approach taken in this study, the framework was neither used to re-shape the research question nor to compose the questions of the study, but rather to analyze the empirical data. The conceptual framework itself was built after the data collection since its purpose is to seek an explanation of the emerging findings from the collected data. The framework is inspired by the summary of the intra-firm collaboration process in Martin & Eisenhardt (2010) and various types of BPM literature. It illustrates the potential effect of the identified concepts of metrics, which are hierarchy, category, perspective, and data type of metrics, on the likelihood and the management of CI as an intra-firm collaboration.

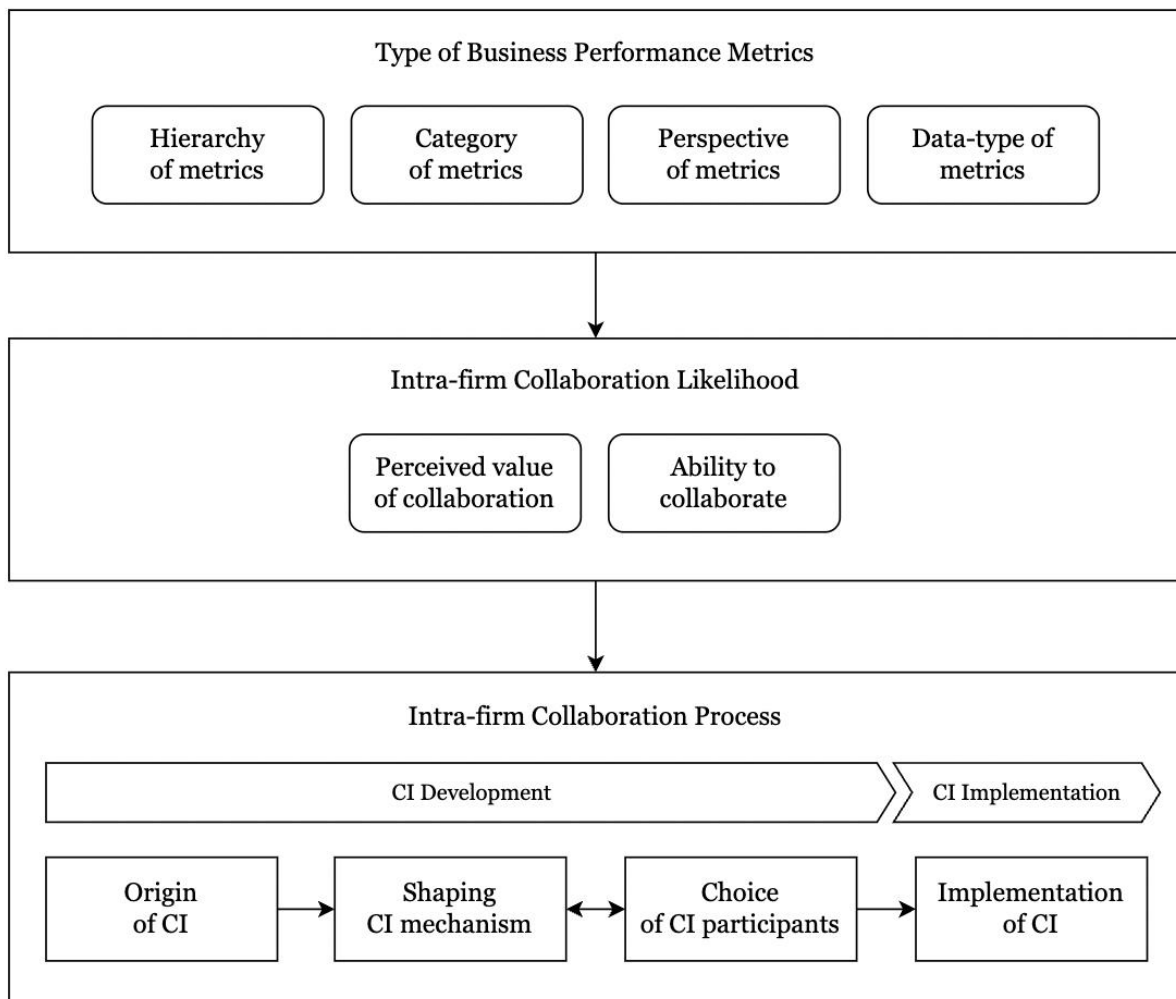


Figure 3. Conceptual Framework

3 Methodology

The aim of this chapter is first to describe the scientific approach that justifies the research approach and elaborates on the research design (3.1). Then, the specifics and rationale for the data collection (3.2) and data analysis are described (3.3). Finally, considerations about the research quality are outlined in the last subsection (3.4).

3.1 Scientific Approach

3.1.1 Research Approach

Given that the development and implementation of CI require a detailed description of specific phenomena, we aim to collect textual and dialogical information. As defined by Bell et al. (2019), qualitative research emphasizes words rather than numbers in data collection and analysis, enabling the development of new theoretical propositions based on real-world observations (Korstjens & Moser, 2017). Furthermore, in the literature review, we found a research gap between CI organizational challenges and BPM, where no prior theory can directly answer the research question. Thus, no testable construct to build hypotheses. Instead, open-ended research is needed to build these constructs. Corbin & Strauss (2008) describe inductive analysis as "the researcher begins with an area of study and allows the theory to emerge from the data". Therefore, we chose a qualitative research approach using inductive analysis.

In this light, we aimed to collect data to detect interesting findings in specific observations. We then used these findings to identify broader themes that serve as puzzle pieces that answer the research question. Then, we sought to draw the connection between the puzzle pieces to answer the research question fully. For the connection to have a robust theoretical basis, we built a conceptual framework with the identified themes in mind. Thus, the borrowed concepts from the previous studies depicted in the framework were based on our empirics rather than the other way around. Therefore, the shaping of our research question and data collection were not steered by the conceptual framework, which means our study is more suited to an inductive rather than deductive or abductive research approach.

Naturalism and constructionism are followed through the research process to ensure the study's rigor. Bell et al. (2019) define naturalism as the practice of seeking to understand social reality in its own terms by providing detailed descriptions of people and interactions. Development and implementation of CI derive from creative activities and interactions designed by company employees. Thus, we used passive interview methods to avoid any influence on data collection and used detailed raw data to analyze the interactions under constructionism ontology (Bell et al., 2019).

3.1.2 Research Design

Case studies were deemed suitable to answer the 'how' research question where there is no clear answer about the complex relationship between BPM and CI (Eisenhardt, 1989; Ebneyamini & Moghadam, 2018; Yin, 2014). Eisenhardt & Graebner (2007) mention that case studies are one of the best bridges from rich qualitative evidence to mainstream deductive research, emphasizing the development of constructs and measures by deriving a testable theoretical proposition using an inductive method (Eisenhardt & Graebner, 2007). Furthermore, Meredith (1998) identifies that one of the advantages of case studies is that the phenomenon can be studied in a natural setting. Therefore, the decision was made to base this study on the observation of real-life cases.

When comparing case study research designs, multiple case designs can give the study more compelling evidence to gain more robust and rigorous results (Herriott & Firestone, 1983; Yin, 2014). Multiple case design also allows researchers to analyze the empirical constructs and interactions among different cases and their underlying logical arguments, thus enhancing the quality of the inductive approach (Eisenhardt & Graebner, 2007). Due to these arguments, a multiple case study methodology with qualitative data collection and an inductive analysis approach was selected to answer the research question considering its likelihood to generate novel and testable theories with empirical validity (Eisenhardt & Graebner, 2007).

3.2 Data Collection

The data collection is performed from multiple sources of evidence following the principles of case study data collection (Yin, 2014), enabling the convergence of evidence and, thus, data triangulation (Patton, 2002).

3.2.1 Replication and Samples

As Eisenhardt & Graebner (2007) argue, theory building from multiple cases typically yields more robust, generalizable, and testable theories than single-case research. The reason is that multiple case studies built the theory upon uncovering a significant finding from a single case, which can be replicated by conducting additional case studies (Yin, 2014). With such replications, the original finding would be considered more robust.

The replication approach of this study follows the multiple case study procedure proposed by Yin (2014). The first step includes research definition and design, where we select cases and design the data collection protocol. The second step is preparing, collecting, and analyzing the data. We analyze individual cases separately due to replication logic. The third step is to analyze and conclude, where we conduct the cross-case analysis using replication logic and conclude the study's findings.

Selecting appropriate cases is crucial in case study research to control extraneous variation, to define the limitations of findings' generalizability, and ultimately to showcase the theoretical contributions given the chosen research setting (Eisenhardt, 1989; Lindgreen, 2021). To provide a stronger foundation for theory building (Yin, 2014), a multiple case study with a "polar types" approach was conducted with contrasting patterns in the data (Eisenhardt & Graebner, 2007).

The setting is the fast-moving consumer goods (FMCG) sector in the retailing industry, which is an attractive industry for several reasons. The FMCG sector has the highest level of CI compared to other retailing sectors (Iglesias-Pradas, 2022), making it feasible to dive deep into a context where the phenomenon to be observed, CI, is highly likely to be present. Therefore, the choice of companies to conduct the case study becomes broader. The search focused on two polar opposite FMCG retailing companies. Retailer A is an international fashion retailer present in over 70 countries with over 80 years of operation experience and over 1500 employees. Meanwhile, Retailer B is a regional baby product retailer focused on European countries and has over seven years of operation experience with over 50 employees. These samples accord to a typical "polar types" research with big-and-experienced versus small-and-novice archetypes. Each case company was considered as one experiment in this multiple case study. Combining the polar approach and replication logic, we aim to

find contradictive findings on CI development and implementation to build a more generalizable theory compared to single case study (Yin, 2014).

Furthermore, to ensure the depth and quality of collected information, employees with adequate knowledge (Eisenhardt & Graebner, 2007) about initiatives of channels, BPM, and the retailer's strategy were identified and considered as potential interviewees. During the interviews, we used snowball sampling (Patton, 2002) to identify other informants who were involved with CI. Finally, to reduce informant bias, the interviews were conducted with employees from across the retailers' hierarchical levels, functional areas, and geographical locations.

3.2.2 Interview Design

Interviews are a highly efficient way to gather rich, empirical data (Eisenhardt & Graebner, 2007). To ensure we address the research question effectively, we chose semi-structured interviews as they provide a balance between focus on predefined topics and flexibility of discussion points (Bell et al., 2019). The research question of this study focuses on BPM and CI in both retailers. Considering the different contexts in both retailers, we chose to follow semi-structured interviews, which allowed us to address more specific issues and categories while still having flexibility to adapt the conversation.

Eighteen interviews were conducted for the first case retailer and three interviews were conducted for the second case retailer, reflecting the size of each company. Due to the time constraints of the interviewees, the average duration of the interviews is 28 minutes, which Yin (2014) categorizes as shorter case study interviews. The interviews, therefore, needed to be more focused and follow the main topic of the case study more closely. We recorded and transcribed all interviews and created field notes within two hours after each interview.

We developed an interview guideline (Appendix A) according to the conceptual framework, which consisted of 1) a disclaimer of ethical aspects, such as interviewers' profiles, the purpose of the interviews, and data confidentiality, to ensure that the respondents felt that they could speak freely in the interviews, 2) preliminary questions to get respondents more acquainted with the interviewers and the topic, and 3) main questions, that comprised of open-ended questions and follow-ups to delve in each focus area. The main questions were designed following the five-level framework

(Yin, 2014). First, questions asked for specific interviewees depend on the interviewee's role. Second, questions asked for respondents from Retailer A and Retailer B depend on the CIs present in the companies. Third, questions asked for finding patterns across the two retailers are about examples and utilization of BPM and CI. Fourth, questions beyond the case study evidence are about omni-channel, multi-channel, and CI examples from literature and real-world observation. Finally, normative questions about conclusions asked are about the interviewee's perspective on trends in retail industries.

Interviews were then conducted by having the guideline as a basis and inspiration for asking questions, not as an instruction. Consequently, there were variances in the topics covered in different interviews. Throughout the study, we iterated the questions in the interview guideline by identifying their relevance to the conceptual framework and ability to collect needed information. The interview transcripts and field notes aid these iterations. Regarding the validity of these iterations, Eisenhardt (1989) argues that the adjustments process in data collection is valid since its purpose is to gain an in-depth understanding instead of producing a statistical summary of observations as long as the data collection and data analysis occur concurrently.

Regarding the interview settings, the interviews were conducted in a hybrid model based on the interviewees' preferences. Google Meet and Microsoft Teams conferencing tools were used for the interviews, depending on the system preference for each case company. We asked for the interviewees' consent to record the interviews, allowing us to transcribe the recordings to establish the case study database. All interviews were conducted in English, as English is the common language for all participants from different regions. Eighteen interviews were conducted for the first case retailer and three interviews were conducted for the second case retailer, reflecting the size of each company. Due to the time constraints of the interviewees and the risk of interviewee fatigue (Adams, 2015), we set the interview length to 30 minutes. As a result, the interviews ranged from 17 to 43 minutes, with an average of 28 minutes, which Yin (2014) categorizes as shorter case study interviews. The interviews, therefore, needed to be more focused and follow the main topic of the case study more closely. Table 1 presents the interview list. We recorded and transcribed all interviews and created field notes within two hours after each interview.

Table 1. Interview list

ID	Retailer	Role	Date	Duration
1	A	E-commerce Business Developer	13 Oct 2022	0:26:33
2	A	Retail Operations Manager	13 Oct 2022	0:19:04
3	A	Global Marketplace Specialist	13 Oct 2022	0:26:47
4	B	CEO and Offline Wholesale Manager	13 Oct 2022	0:33:21
5	A	Global Head of Retail Experience	14 Oct 2022	0:43:33
6	A	Global Head of E-commerce Operations	14 Oct 2022	0:24:56
7	B	Head of Marketplace	14 Oct 2022	0:21:12
8	A	Channel Marketing Manager	17 Oct 2022	0:20:40
9	A	Digital Wholesale Commerce and Marketplace Manager	17 Oct 2022	0:31:30
10	A	UX Researcher for E-Commerce	19 Oct 2022	0:17:46
11	A	Head of Demand Planning	19 Oct 2022	0:26:33
12	A	Head of Wholesale Sales and Operations	19 Oct 2022	0:43:03
13	A	Head of Retail Nordics	20 Oct 2022	0:22:50
14	A	Head of Channel Marketing	20 Oct 2022	0:27:20
15	A	Project Manager Strategic Initiatives	21 Oct 2022	0:26:48
16	A	E-commerce Campaign Specialist	21 Oct 2022	0:24:34
17	A	Customer Service Manager North	24 Oct 2022	0:26:18
18	A	Public Relation Manager	25 Oct 2022	0:26:39
19	A	Digital Marketing Manager	26 Oct 2022	0:27:20
20	B	Marketplace Specialist	26 Oct 2022	0:28:19
21	A	Head of Key Account Nordics	27 Oct 2022	0:33:21

We performed triangulation to strengthen the construct validity of the study (Yin, 2014). The first source of evidence comes from documentation, including announcements and ways-of-working pages on the company's internal website, as well as strategic, branding, and progress reports. The second is the archival records in the form of metrics tracking documents. The last, also primary source of evidence is interviews with the company's employees, including follow-up emails and additional related slides provided by the interviewees. Although triangulation of data resources enhances the robustness and rigor of the findings, there are still some potential

informant biases. First, we intended to interview employees from all different channels and departments from different hierarchies. Due to time availability, we could not contact C-level managers and employees from the customer relationship management (CRM) department. Second, the CI might have happened in the past or will happen in the future, so there could be recall bias and thus determine the accuracy (Golden, 1992; Koriati et al., 2000).

3.3 Data Analysis

Following recommendations for multiple case theory building (Eisenhardt, 1989b; Eisenhardt & Graebner, 2007), we used within-case and cross-case analysis techniques with a ground-up strategy to analyze the data and conclude the findings (Yin, 2014). We began the within-case analysis by conducting inductive coding (Thomas, 2006). First, we printed all the interview transcriptions as preparation or data cleaning. Then we read the raw data in detail, highlighted relevant themes and topics, and built individual write-ups and understandings for the first case company. Using the personal write-ups and highlighted quotes, we identified and defined the categories. Following the ground-up strategy proposed by Yin (2014), we first labeled the text segments to create categories based on the components of the research question. Then, we re-read the text segment categories to reduce redundancy among the identified categories.

As a result, a three-level data structure (Gioia et al., 2012) was composed for the first case retailer. The first-order concepts summarize observations from the interviews and other materials using the interviewees' words. The second-order themes grouped the first-order concepts to inform the aggregated dimensions. The aggregated dimensions explained how each retailer uses BPM in each key process of CI development and implementation. We then repeated the steps from data cleaning to creating data structure for the second case retailer. Upon completing these steps, we started the cross-case analysis. We compared the similarities and differences in the data structures of the two case retailers. Then, we developed the final data structure representing both case retailers (Figure 4).

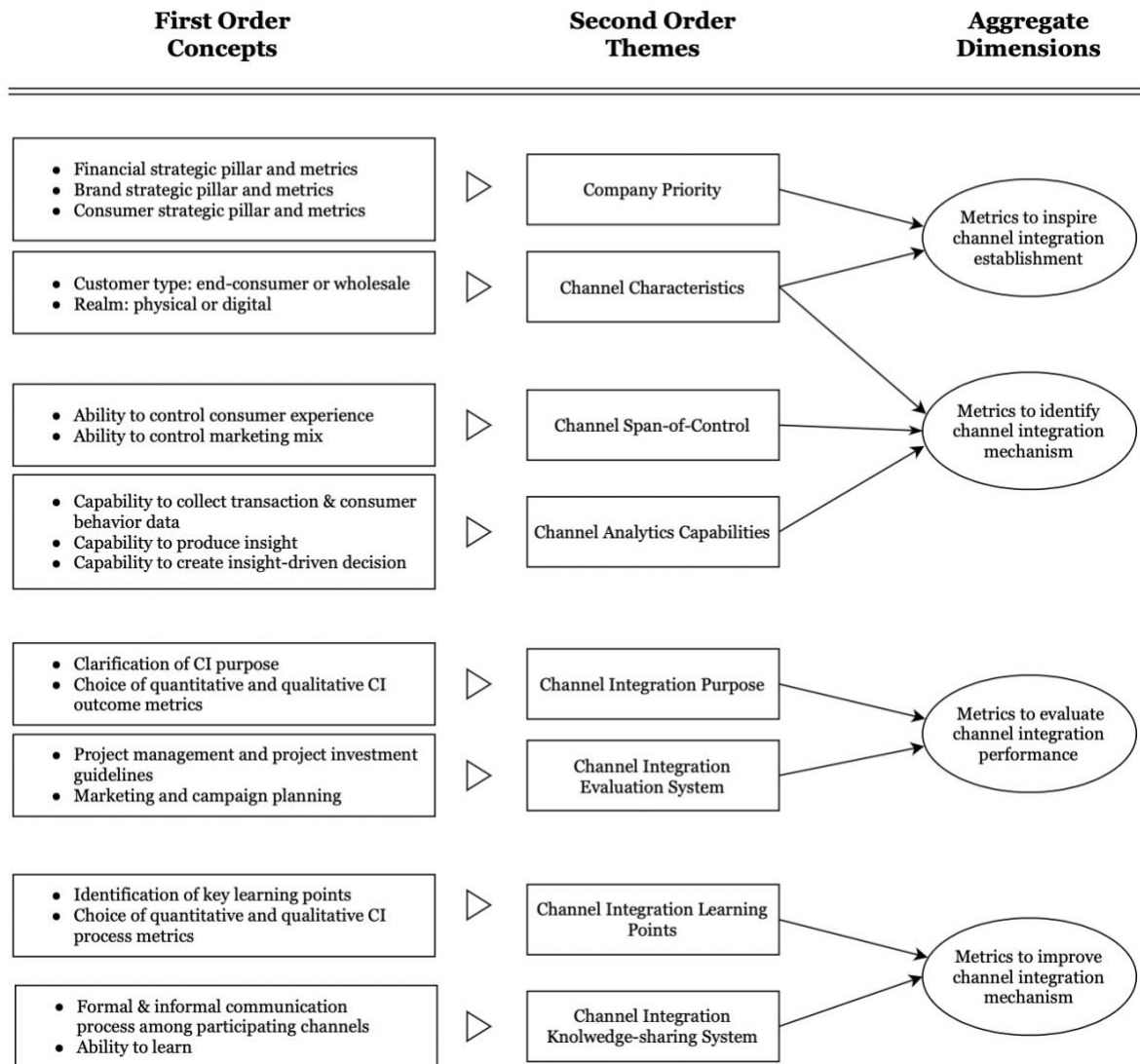


Figure 4. Data Structure

3.4 Quality of Study

As the study was conducted in the inductive and qualitative approach, the quality and rigor of the study are crucial for receiving a robust and solid answer. To ensure this study's trustworthiness, the four general criteria from Lincoln & Guba (1985) are followed, which provide a mix to examine the validity of the qualitative research. These are credibility, transferability, dependability, and confirmability.

3.4.1 Credibility

Credibility asks, "how congruent are the findings with reality?". Bell et al. (2019) referred to it as internal validity. The study followed different forms of triangulation to prompt credibility (Lincoln & Guba, 1985). The data sources of this study include

interviews, field notes, transcripts, and the case retailers' internal documents. The data analysis was performed by having one researcher analyze the data gathered by the counterpart researcher. Thus, the identified data patterns were established using several sources of information and following a triangulation procedure. Additionally, member checking was conducted by presenting the preliminary research findings to the interviewees.

3.4.2 Transferability

Transferability describes the external validity of the research (Bell et al., 2019), meaning that patterns and descriptions from one context may apply to another. In this study, we narrated and explained the cases in a thick description that documented detailed contextual information, such as the method and time frames of data collection. We aimed to provide an adequate portrayal of the contextual retail environment for possible application to other situations by future researchers.

3.4.3 Dependability

The third perspective on trustworthiness offered by Lincoln & Guba (1985) is dependability. The entire study is conducted under researchers' anticipation of review by a peer researcher to ensure that the study is repeatable by other researchers. The data separation into interpretations and observations is followed through data collection and analysis to promote the reflexive and bracketing effects. Additionally, the researchers' biases and assumptions were reflected throughout the research activities.

3.4.4 Confirmability

Confirmability is the last perspective of trustworthiness (Lincoln & Guba, 1985) which describes how close the study is to objective reality. To establish confirmability, we persuaded the precision and accuracy of the information and insights narrated by the interviewees, aiming to minimize the researchers' influence during the interview and the contamination of researchers' bias on the data interpretation.

4 Empirical Findings

This chapter presents data that are structured according to second-order themes from the data structure (Figure 4). Data in this chapter are purely descriptive, meaning that it provides an as-is depiction of CI and BPM in both case retailers. The data in this chapter serves as the basis of analysis to answer the research question that will be discussed in Chapter 5. Since this study follows multiple case study methodology with replication logic, empirics from Retailer A are first presented (4.1) before Retailer B (4.2). Finally, a summary of the CIs of both retailers is presented in Appendix B.

4.1 Case-1: Retailer A

4.1.1 Company Priorities

Retailer A has three strategic pillars, namely: 1) organic growth and expansion, which represents Retailer A's financial priority; 2) premiumization of products and brands, which encapsulates Retailer A's brand priority; and 3) elevating the consumer experience, which portrays Retailer A's consumer priority. The first two pillars are translated into both company- and channel-level metrics. Meanwhile, according to the interviewees, the last one is translated into channel-level metrics since consumer experience is rather hard to define and measure in company-wide settings.

There are three company-level financial metrics. The first metric is *total sales* as an indicator of growth. Then, this metric is derived into all sales channels responsible for achieving it. The achievement of channel-level financial metrics is reviewed monthly. However, the interviewees expressed that the channels are not only measuring total sales or revenue but also the funnel metrics such as *conversion rate* or *sell-through*:

"In e-commerce, we measure conversion rates and, of course, average transaction value, basket size, and I think those are the most important and in the end, it all results in sales." -6

"If we look at the performance in our stores, it's the conversion rate, the average transaction price and the unit per transaction. I mean, that's the basics of it." -2

Interviewee-1 from Retailer A's e-commerce channel mentioned that number of transactions, another example of funnel metrics, gave her the idea to initiate a

collaboration with Retailer A's retail channel to increase the number of product ratings and reviews:

"We are now working to populate [product] ratings and reviews in our e-commerce website because we know it's a way to increase the [transaction] volume. We understand the importance of these reviews for our consumers so we believe we can increase the conversion rate by doing this." -1

The second and third financial metrics are *EBIT* as an indicator of profitability and *cost control* as an indicator of efficiency. Both metrics are also derived into channel-level metrics. For example, Retailer A's digital wholesale and retail channels monitor their respective channel's EBIT to give signals about the channel's business condition. In addition, the retail channel also measures *staff cost*, *purchase of garments*, and *rent* since those are components that the channel can directly control:

"If you look from a financial perspective, you look in the bottom row, what is the EBIT margin to understand how healthy the business is." -9

"We're not only looking at the top line, we're looking at gross margins, we're looking at the staff costs, we're looking at everything that can affect us with our bottom line." -13

Brand image and brand awareness are company-level brand metrics. These metrics are chosen in alignment with Retailer A's premiumization strategy, which means that these metrics aim to measure how and how many consumers perceive Retailer A as a premium brand in the fashion retail industry:

"I would say that the strategy going forward for the whole brand is also about the image." -12

"Throughout the year, we measure our brand awareness. It is one of our global KPI for our company being measured on [...] the brand awareness is like the umbrella KPI that every channels are trying to build" -5

Interviewee-12 from the wholesale channel also expressed the use of these metrics to base the channel's activities, like evaluating the relevancy of their customers to support Retailer A's shifting brand image:

"We are getting a little bit more premium and rejuvenated. We will require the wholesale channel's sales team to start looking into which customers are engaging with us [since] we need to make some kind of reassessment of the customers that we have." -12

Brand metrics also measure the funnel of brand awareness at the channel level. However, these funnel metrics can differ from one channel to another:

"When we look at the high funnel consumers, we measure brand awareness, reach, and impressions. Then at the mid and low funnel, we are looking into the sessions of [how many] people we will get on our website and for how long." -19

Interviewee-14 also mentioned that brand image is the basis of channel activities such as ensuring consistent messages and unifying look-and-feel across the company's sales and marketing channels:

"The campaign launching portal is made to ensure that we have an integrated message across all channels to our desired end consumer target. That's where all channels are aligned and sharing what the next month looks like, from content to copy. It's really about consistency across the channels." -14

Finally, consumer satisfaction is the primary consumer metric measured by different channels. In the e-commerce channel, a newly established team, customer relationship management (CRM), is responsible for measuring the metric both quantitatively and qualitatively. The team calculates retention rate, customer lifetime value, and net promoter score, as well as inquires feedback from the customer service team:

"The CRM are the ones collecting the retention rate and customer lifetime value to get the overview of the whole customer experience. I really liked that we will be looking into gathering more like a steady feedback loop and net promoter score so then we can see if some markets are lacking or not performing as well." -10

In the retail channel, the metric is gathered in qualitative format through in-store staff:

"We do get feedback [from the consumers] every day, but in this [conversation] format, we need to do something about it, either if they're happy or unhappy, or whatever it might be. So we always work with it, but it is hard to measure it." -2

4.1.2 Channel Characteristics

Retailer A's sales and marketing channels are classified based on the target group and the realm in which the channels operate. By the target group, Retailer A has both direct-to-consumers (D2C) and wholesale (B2B) channels. D2C channels include e-commerce, seller-account marketplace, and retail stores. Meanwhile, wholesale channels include digital wholesale, vendor account marketplace, and offline wholesale channels. E-commerce, marketplaces, and digital wholesale are online channels, while retail stores and offline wholesale are offline channels. By having various channels with these different characteristics, Retailer A aims to fill the gap to achieve Retailer A's priorities and cater to consumers' needs. The characteristic differences also impose that every channel has its benefits and limitations. Therefore, to achieve metrics (4.1.1), they intend to bridge the limitations of one channel by leveraging the benefits of the others through collaboration between different channels, as interviewee-3 described:

“Ideally, we would like to have everything available everywhere. But sometimes you can just not do that because of different reasons, sometimes it’s marketing, sometimes it’s business strategy [...] Channels have different purposes but the hybrid model would contribute to brand awareness by being present in different channels.” -3

Another example illustrates collaboration between channels with offline and online characteristics. 'Endless Aisles' enables consumers to buy products from one of the retail stores where they tried them, even when the products are not available in the store's inventory, by ordering the out-of-stock product using an in-store device that connects with e-commerce inventory:

“We always try to get a purchase even if we don’t have it [the product] in stock at the moment [...] I mean our stores have a limited stock. We don’t have the ability to have the whole range within sizes and colors. So we need to work together .” -2

4.1.3 Channel Span-of-Control

Retailer A's channels have different span-of-control levels over their consumer experience and marketing mix. Channels with a high span-of-control over their consumer experience can interact directly with the consumers, thus, flexibly affecting

the consumer's shopping journey. These channels are more able to improve the consumer experience within their channels compared to channels with low span-of-control. Generally, D2C channels have a higher span-of-control compared to wholesale channels:

"When you're directly going to the consumer, you can establish more of what you want." -12

"The marketplace platforms are in charge of the consumer experience and responsible for everything we do there. We don't have direct contact with consumers, which is kind of the tricky part. We could not get feedback from customers like in e-commerce or the physical (retail) stores ." -3

The channel's control over the marketing mix relates to how in control the channel is of the consumers' offerings: product, price, promotion, and place. D2C channels can freely choose products from the company's collections that they want to sell, while wholesale channels can only recommend the products to their customers. D2C channels can also set the price of the products flexibly, according to the cost of operating their channels, which they can calculate accurately, and the margin that they want to add based on the company's profitability analysis. On the other hand, wholesale channels must negotiate to maximize sell-in, and they can decide the pricing of their customers by themselves. As a result, pricing in D2C and wholesale channels can differ from the consumers' perspective:

"I think that both in retail and e-commerce, they're very much aware of the fact that the wholesale customers do not always have the same interest [of the product assortments] because it's more commercially driven in wholesale." -12

"When you don't sell your goods through your own platform that's the main difference, I would say. You have control of your prices and the sales events you want to take part in but sometimes you cannot decide a lot so you lose a little bit of control." -3

D2C channels also can decide on the promotion based on the channel's assortments and profit-and-loss calculations, while the wholesale channels can not, as these interviewees described:

“We are launching brand activation activities twice a year over all different channels, but maybe not that heavy in our wholesale. Although, I do think that they have the possibility to jump on it. But our e-commerce, retail, and social media channels were very hard pushing this activation.” -5

“There is not much difference between the channels except when wholesale is sort of cut off from this campaign because they do not sell this collection.” -8

Finally, the channels' control over the 'place' mix is also different between D2C and wholesale channels both in their online and offline realms. For example, retail channels have a particular guideline at every activation campaign about the placement of the products and their visual merchandising components. All Retailer A's retail stores across the globe should follow this guideline. However, based on the company's internal website, there is no similar guideline for the offline wholesale channel. Furthermore, the e-commerce channel can position a particular product or visual graphic anywhere on its platform. In contrast, due to technical or partnership limitations, the marketplace channel cannot do so:

“You [company A] are borrowing someone else's platform [the marketplace], they have rules. So you cannot just do what you want, so there are limitations of course [...] but it's a very good kind of tap to put on the switch on and for a brand to be visible and not needing to buy tons of traffic to your own website.” -9

4.1.4 Channel Analytics Capabilities

Channel analytics capabilities include the channel's capability to collect transactional and behavioral data, analyze it to produce insights, and formulate decisions or action points based on it. In general, the interviewees from offline channels argued that it is harder to collect, analyze, and take actions based on metrics for offline than online channels. They attributed the challenge to technological limitations. An interviewee described the problem with reliable data collection in retail stores:

“We have this counter and that is basically counting the different consumers that come into the store. But as you might know, these are not 100% trustable as they are basically measuring if someone goes in and out.” -5

Interviewees from the wholesale channels also perceive that it is more difficult for them to collect data for metrics calculation than the D2C channels since they rely on the wholesalers from performance to analytics. Since the wholesalers are separate from Retailer A, their interests are to keep the consumers' information on their side. Therefore, the wholesale channels' approach is to build a stronger relationship with their wholesalers to be able to collect the consumers' data:

"We use mainly their [wholesalers] platform to get all the information and we don't select those metrics by ourselves. They mostly keep the information secret to themselves. Not only as confidential because of GDPR, for example, but also because it's their business as well to keep that information and work with that information" -3

Furthermore, some interviewees mentioned that consumer and brand metrics data is more complicated to collect than financial metrics data. It is rooted in the loose definition of the metrics, difficulty developing data points, and unrepresentative sampling:

"We are very bad in measuring in regards to experience and I would say that is due to the lack of actually finding the different measurement points or the measures that we are wanting to track." -5

Regarding the metrics data analysis, the interviewees explained two main problems. First, the data is collected by different actors and structured in multiple separated sources, so it takes heavy manual work to analyze the metrics. Second, the analysis process is not always intuitive for people in the channels whose main job is not in the data analytics area:

"We need to combine different kinds of analysis because we have the return rates, the sell-through, the discount rates in different files. We need to put all that information together, which is kind of challenging. It's not that easy sometimes because the data we receive is not processed so we need to do that work." -3

"We've been trying a few years back, similar to what we have online, where you can rate the service in a few stores, but we found it a bit hard to actually draw some conclusions from it." -2

Lastly, the interview results demonstrate that Retailer A's e-commerce channel is the most capable channel for making metrics-driven decisions. Besides numerous data points and the high number of samples, its digital and fully-controllable platform environment enables the channel to experiment directly with consumers without a costly investment. It is exemplified in the piloting for the previously mentioned 'Endless Aisles' collaboration:

"At the moment we have like four A/B tests running. On that we have the old [alternative of the endless aisles platform] and the new one. We have a mix of the old and the new one and it makes up the new and the old one. But in those four, we let the customer decide what is for them the best. So in a couple of weeks, we will probably have the results and we will see what we're going to implement." -6

4.1.5 CI Purpose

The purpose of CI is derived from the company- and channel-level metrics that the channel manager is pursuing. It can be to fulfill financial, brand, or consumer priorities. However, the interviewees mentioned that the metrics used to measure CI's purpose sometimes differ from initiating channel metrics. Instead, participating channels of a CI determine a metric that is applied to all the channels, called CI outcome metrics. For example, although the purpose of CI is initially to drive the brand awareness metric of Retailer A's social media channel, the metric used for the CI is the brand awareness metric aggregated for social media, e-commerce, and retail channels:

"Each [collaboration] initiative should have a broader KPI. For example, this project is for brand awareness. So you would look to create brand awareness and drive a halo effect." -14

"What we want to do, at least with my team, is to keep challenging the business side by asking them to set clear objectives for every campaign. [...] Every channel has their separate KPIs and I think it's important to align it because otherwise we can be misaligned in execution and how we evaluate the success of a campaign." -19

Furthermore, the interviewees also implied that CI's purpose affects this metric's selection. A quantitative metric is chosen when a CI is targeted to improve Retailer A's financial priority. Meanwhile, a qualitative metric is preferred when a CI aims to achieve the brand or consumer priority:

"Within the projects, we have specific KPIs depending on the background of the projects. It can be increased revenue, then we measure the number of revenue, or it could be also maybe more like measurements that you cannot put a numerical value on such as in projects about branding or experience." -15

"With social media and all the online marketing, you can get that clear KPIs, you measure quite effectively. But we [PR] is a bit tricky because it is about relationships. For example, when we have a campaign, we can measure the number of articles, but to know whether success or not, it also depends also on the quality of the articles, which is subjective to measure." -18

4.1.6 CI Evaluation System

Retailer A has project management and project investment guidelines. It explained a standardized system for evaluating any project within the company. Retrieved from Retailer A's internal website, every project has to go through several project phases to evaluate the feasibility and viability of the project. The phases are pre-study, formalization, project kick-off, project execution, project closing, and project follow-up. Since the pre-study phase, the project has already been evaluated by estimating the project's required budget, resources, timeline, cost and benefit, and needs of consumers and stakeholders. In this phase, the project initiator uses quantitative and qualitative CI outcome metrics as defined in 4.1.5. The output of this phase is a business case, which is then presented in the formalization phase. Here, the go or no-go decision for the project will be made by the Global Investment Board or Project Sponsor. Once the approval is retrieved, the project moves to the kick-off phase, where the business case is informed to the project team.

After kick-off, the project team executes the project. During the execution, the team continuously monitors the CI metrics defined in the business case and informs the Global Investment Board or Project Sponsor. As the highest-level decision maker, the Global Investment Board or Project Sponsor can determine changes in the project's mechanisms and decide the project's continuation or cancellation. Suppose the project is performing close to estimation. In that case, the project moves forward to project closing, where the project initiator summarizes the final position of CI metrics and key learning points from the project. Finally, in project follow-up, the impact of the projects on the company's priorities is evaluated. The follow-up is set to be twelve

months after the closing due to possible lagging between the project and its impact.

4.1.7 CI Learning Points

On top of CI outcome metrics, CIs in Retailer A also have CI process metrics for deep-dive learning purposes. CI outcome metrics informed the participating channels about the achievement of CI, while CI process metrics informed them about what potentially drives the achievement level. As exemplified by interviewee-5, for the global launch CI, Retailer A's retail store channel has multiple CI process metrics to give a more detailed depiction of the activities of the CI. The quote below depicts the choice of qualitative and quantitative CI process metrics to measure CI learning points:

"We have a platform where when we have a new global launch we publish what we call a mission for all the stores. To complete that mission, they have to take pictures and some comments to show us that they have implemented the launch in the way that we are requesting them to do. There, we can measure different types of KPIs like how many times and in what time they did it [...] We also have a training platform where we can measure how many training sessions the staff have done in every store." -5

The first learning point was how well-implemented the positioning of assets in the retail store was, which is measured qualitatively. The second learning point was the proportion of retail stores that implemented asset positioning well, which is measured quantitatively. With these two learning points, retail store channels learned the best way of achieving brand awareness.

4.1.8 CI Knowledge-sharing System

Retailer A interviewees conveyed the importance of communication between participating channels for CI. The communication ensures that these channels are moving in the same direction. Furthermore, the channels can also learn from each other. During CI, the channels communicate formally and informally. Formal communication can happen directly through scheduled meetings, such as weekly catch-ups and a chat messenger group, and indirectly via internal communication platforms, such as a website called Happeo. Informal communication happens when at least two team members of participating channels discuss CI in social interaction, for example, when they meet in the pantry. The team members exchange information

about the CI regardless of the communication type. They can discuss how good or bad the CI is going, what worked and did not work, and how to improve the CI:

"We just needed to share best practice really, why are these stores so much more successful using endless aisle and they can share best practice and make sure that the other stores can catch up." -2

Lastly, the team members also described the typical arrangement of a CI team. Each participating channel has dedicated at least one person from the channel to be a team member. Unique to the initiating channel, the channel also assigned a CI leader to be the person-in-charge of the entire collaboration. An interviewee expressed the focal role of the CI leader to connect the team members from different channels for the CI to run smoothly:

"I do think for these kinds of initiatives, it would be best if there's always a project person assigned. We kind of need to be in constant sync with each other. In the ideal situation, there's always a project to lead that can communicate with all the people responsible in each channel." -16

4.2 Case-2: Retailer B

4.2.1 Company Priority

Financial priority is the focus of Retailer B's strategy. As an interviewee described, every activity within the company is evaluated based on its scalability from a financial perspective. The priority is translated to the company- and channel-level metrics, which are transaction-focused numbers:

"As a company, we've always thought about being scalable, meaning that we can implement the same strategy for expansion with as little cost and friction as possible." -4

"We look a lot on sales reports [of our wholesale customers], which retailers they're doing, how many are listed. Then, we also measured their sell out to the customers and the sell out from that specific customer to end consumers." -4

However, despite not explicitly stated in a strategic document, the interviewees

implied the importance of measuring the company's brand awareness and image. They perceived that these brand metrics are essential for the consumers to find the company's products and choose them instead of competitors. Furthermore, an interviewee also mentioned that collaboration between the company's sales and marketing channels is needed to build brand awareness in different consumer segments:

"Of course from the brand perspective, we need to control the brand image by the end of the day." -7

"We want to have the best possible reach and for everybody within the company to take part in that and connect with each other, which I guess will bring the best possible outcome." -4

Regarding consumer priority, the interviewees explained that the voice of consumers is extremely valuable and crucial for the company's growth, especially when considering the nature of the company's products. Consumers trust in the product's functionality and safety plays a significant role in consumers' purchase decisions. Therefore, Retailer B takes product-related feedback seriously by following up on the input to the product development team and sales and marketing channels, exemplifying a qualitative approach to measure consumer priorities:

"We have a consumer service team, because our product is more like an ergonomic, functional product. So we got a lot of complaints about problems in our products. These complaints are not only shared to the product development team but also to the channels team. Then, we can change our product description in our pages." -20

Nevertheless, consumer priority is also measured quantitatively by product rating. The sales and marketing channels periodically monitor the number and the average rating value given to each company's product. By doing so, they can derive some learnings about the consumers' purchase decision, such as what is the threshold of rating that affects consumers' trust of the company's product as explicitly stated by interviewee-7:

"In our own e-commerce store, we have a measurement of rating because it's something that people can really see how to see before they make any purchase." -7

4.2.2 Channel Characteristics

Retailer B has both D2C and wholesale channels. Within the D2C area, Retailer B has an e-commerce channel. To drive traffic to e-commerce, the company strongly focused on online marketing channels such as e-mail, social media, and influencer marketing. Within wholesale, Retailer B has both its offline and online arms. The offline wholesale focuses on finding retailers in Sweden and distributors that can connect the company with retailers outside Sweden. Meanwhile, the online wholesale channel handles marketplace platforms in and outside Sweden. The interviewees mentioned that the birth of these channels with various characteristics is due to the different preferences of consumers when they shop for the product category sold by the company:

"I always say marketplaces are for consumers who want to buy a single product because they have free shipping. Also, going to marketplaces is much easier." -7

"We have these different channels to focus on different consumers. So together, they can build our brand awareness because people can find the most suitable way for them to choose where they find us." -4

To spread awareness about Retailer B's presence in different channels, the e-mail marketing channel established a newsletter initiative which is a collaboration of all company sales channels with the e-mail marketing channel:

"Sales and marketing goes pretty much hand in hand. So it's very hard to do sales without marketing and vice versa. We have done [an initiative] to combine these channels. We have newsletter sign-ups and social media influencer marketing where we inform the consumers where they can buy our products." -4

4.2.3 Channel Span-of-Control

The interviewees admitted that there are differences in the ability to control consumer experience and marketing mix between D2C and wholesale channels. Retailer B's e-commerce, for example, has a chat box where consumers can instantly ask help from the company's support team. Meanwhile, in the marketplace channel, Retailer B lets the marketplace' support team handle any consumer's inquiry. Because different support teams handle the consumers, they likely experienced different services even though they bought the identical product from Retailer B:

"Actually, we don't take care of helpdesk or support from marketplaces because they take care of it with their support team." -7

Interviewee-4 also claimed that the feedback loop in the offline wholesale channel is too complicated to follow-up, further distinguishing experience between the online D2C and offline wholesale channels:

"With offline, there are so many steps. A consumer bought something at a store, they returned it for some reason, that reason needed to be sent to the distributor and then the distributor shared it to us. So you know, the feedback loop is just not viable." -4

Interviewee-4 also mentioned that the e-commerce channel has unique product assortments unavailable in other channels. The main reason is that the company fully understands the mechanism and resources to sell a product through this platform. Therefore, the company can optimize its pricing by experimenting with different bundles of transactions:

"If we sell bad product combinations that don't sell to consumers, the wholesalers will probably not like what we do if we come up with some new ones. But in our own e-commerce, we can take all the risk because we can be more flexible. We can act more smart against ourselves, but we don't really have to think about anyone else in that term. As soon as you go out and you engage with third parties or customers or relationships, your agenda becomes less of an attention." -4

The pricing scheme between Retailer B's channels can also differ due to different cost structures and business models. The e-commerce channel has complete control over selling products with a higher margin. At the same time, wholesale channels are likely to sell the same products at a lower price point even though they also can not control the margin that the marketplaces, retailers, and distributors will add to the final price:

"I'm aligned with the campaign calendar, but we don't have the same price strategy. We have a dependent price strategy because we have a different business model, because they're selling directly to the end customer but I am selling to third-party." -7

4.2.4 Channel Analytics Capabilities

Interviewee-4 admitted that collecting data from offline channels is difficult, especially since Retailer B does not have its own offline channels. Retailer B's offline channels must gather transactional and consumer behavior data from the third parties they partner with. The collection is even more difficult for brand and consumer metrics since the third parties are primarily concerned with transactional performance only. However, this data-gathering method's main concern is the time to get the data, which is not an issue for the company's online channels. Therefore, data collection within Retailer B is solely powered by e-commerce, marketplace, and online marketing channels:

"I think it's very hard to get metrics from an offline perspective. I mean, we don't really do in store follow ups to that extent. I think we rely a lot on our online channels being marketplace, e-commerce, and social media to get the feedback from the end consumers because it's a much faster way to get response from the consumers than to go through the offline channels." -4

Regarding what to do about the data, an interviewee also mentioned an issue of analyzing the data. The problem comes from attribution-issue, which the interviewee explained as:

"Sometimes there are too many variables to deal with so it is very hard to say exactly what drove certain things or to measure what specific actions that gave this result." -4

Despite this problem, interviewee-20 exemplifies a practice of insight-driven decision-making. Once there was a specific product that Retailer B sold in multiple channels, which received an unusually high number of complaints. After analyzing the complaints data from all of the company's channels, the team decided that the product's design was the root cause. With this information, Retailer B agreed to stop this specific product's distribution to prevent further damage to both the consumers and the company:

"Once we stopped distribution of a certain type of product because we got too many complaints on the product. So we decided to not sell that in our channels anymore."

Additionally, the sales of bundle products in the e-commerce channel are also an instance of insight-driven decision-making. The channel has transaction data, which is then analyzed to produce insight into what products the consumers usually buy together, so the company can formulate bundles that can increase basket size and average transaction value. By collecting and analyzing these bundles' sales performance, the channel can further experiment with adjusting the bundles until optimum assortments are figured out:

“There are certain tools we can use so we can be smart about combining products into a bundle or a package. That gives us another possibility.” -4

4.2.5 CI Purpose

Interviews with Retailer B resulted in only one CI, 'Newsletter Initiative', which purpose is to increase consumers' awareness about the availability of products in Retailer B's various channels (4.2.2). Therefore, the participating channels agreed on choosing the total volume of transactions attributed to the newsletter as the CI outcome metrics. This metric is quantitative-type and mainly owned by Retailer B's e-mail marketing channel as the initiating channel. However, the metrics are communicated:

“We have newsletter sign-ups to inform the consumers where they can buy our products. Then, we measure the revenue generated in each sales channel that comes from the newsletter and sum them up.” -4

4.2.6 CI Evaluation System

Retailer B does not have a formal company-wide system for project evaluation. Channel evaluations are performed monthly in a meeting attended by the channel managers and the CEO. There, they mainly discuss the company- and channel-level metrics (4.2.1), followed by particularly prominent activities in the evaluation month, including CI:

“In our monthly meeting, we discussed the revenue that each sales channel made to see growth and contribution of each channel.” -21

"My team has an understanding of the business and the targets that we need to adhere to. We define our targets and resource allocation for projects moving forward based on their feedbacks." -21

4.2.7 CI Learning Points

In addition to the CI outcome metrics (4.2.5), Retailer B's newsletter CI has CI process metrics based on the activity points the participating channels want to learn. They measure each sent newsletter's open rate and click-through rate and the aggregated version per certain period. Furthermore, an interviewee also mentioned using qualitative CI process metrics in newsletter CI. By combining both types of metrics, they can learn what content and timing of delivery will most likely drive the best result:

"One of the metrics that we measure is customer feedback, it's mostly qualitative because it informs you directly what kind of improvements or initiatives we are going to take, especially for ad hoc improvements." -7

4.2.8 CI Knowledge-sharing System

Retailer B performed formal and informal communication to share knowledge between the participating channels in the newsletter CI. The formal communication happened in weekly synchronization meetings between the channels and in a dedicated group to discuss the CI in the company's messaging platform. Informally, the team members talk about CI in social interactions in the office. The interviews also showed no appointed CI leader due to human resources limitations. Therefore, the knowledge-sharing happened in a less directed system and relied heavily on team members' initiative level:

"Because we have such a small team, there is no extra leader to lead an initiative across sales and marketing channels. It kind of happens automatically and everyone is aware of what they are doing and actively updating each other." -20

5 Analysis

This chapter presents the output of the analysis that answers the research question. The input of the analysis is the empirics described in Chapter 4 and the process of the analysis is guided by the conceptual framework illustrated in Figure 3. This chapter is structured as follows: the utilization of BPM in CI development (5.1) and the utilization of BPM in CI implementation (5.2). To summarize the analysis, a final framework is proposed (Figure 9).

5.1 BPM in CI Development

5.1.1 Company- and Channel-level Metrics to Inspire CI Establishments

Our empirical findings showed that both retailers have company-level and channel-level metrics derived from their company priorities and influenced by channel characteristics. It means that the retailers translate their abstract company priorities into concrete measures. By being more concrete, both company- and channel-level metrics give more vigorous enforcement and tangible inspiration for the channels to establish CI.

Since a retailer might have more than one company priority, each type of company priority is translated into a corresponding category of metrics. Retailer A has financial, brand, and consumer priorities, which are derived into company-level financial metrics such as revenue, brand metrics such as brand awareness, and consumer metrics such as customer lifetime value. On the other hand, Retailer B has only explicitly mentioned their financial priority; hence, they only measured and discussed company-level financial metrics within company-wide meetings. Therefore, a particular category of metrics can be said to reflect a specific company priority.

From the relationships between company priorities and company-level metrics, we also identified a linear relationship between the number of company-level metrics categories with the number of CI establishments. Retailer A, which has three priorities, exemplifies several CIs. Meanwhile, Retailer B only mentioned one. A possible explanation for this relationship is that the higher number of company-level metrics categories enforces more directions for the channels to accomplish (Otley, 1999; Kaplan & Norton, 2006; Eckerson, 2010). The higher number of company-level metrics categories also presents more information (Ailawadi & Farris, 2017) the

channel managers have as inspiration for developing activities to pursue or improve.

Naturally, the channel-level metrics are closer to the channel managers than the company-level metrics, and thus, they attract more attention and focus from the channel managers. For example, Retailer A's sales channel managers always know of the revenue of their channels rather than the company's overall revenue. Additionally, when asked about their responsibilities, their answer focused on maximizing their channels' revenue per period. The reason is that every period, a channel is evaluated based on its contribution to the overall revenue, affecting the management's strategic and operational decisions for that respective channel in the upcoming period. It includes resource and investment allocation.

With this in mind, every channel manager is always well-aware of channel-level metrics' achievements. They use the metrics to indicate the performance of their channels, as in how good or bad it is, hence motivating them to take action to improve it. Furthermore, they also use these metrics to look for action alternatives. First, they can use them to investigate the driving factors of the channel's performance. After knowing the most prominent factor, they scout opportunities in other channels to push the factor. Second, they can use them to identify other channels that have urgency to improve similar channel-level metrics. For example, Retailer A's social media marketing and e-commerce channels have realized that they need to improve their metrics in the brand awareness category more than any other channels. Therefore, social media marketing approached the e-commerce channel to work together to improve the metrics. This behavior exemplifies goal congruence (De Clercq et al., 2011) among the channels. When two channels have similar metrics that they are accountable for, the goal of these channels are said to be congruent, and the interests of these channels are aligned. As a result, they perceive similar values from working together. Hence, the likelihood of them performing a collaboration increases (Kretschmer & Puranam, 2008).

CI is a result of this "get motivation and action exploration" mechanism, although not always. Sometimes, the mechanism causes activity redesign within a channel. Nevertheless, it can be concluded that channel-level metrics have a central role in motivating channel managers as the origin of CI (Martin & Eisenhardt, 2010) to establish CI. Furthermore, since the empirics demonstrated that channels are the

origin of CIs, CIs in our case retailers can be classified as BU-centric collaboration processes (Martin & Eisenhardt, 2010) rather than corporate-centric collaboration processes. The summary of this analysis is illustrated in Figure 5.

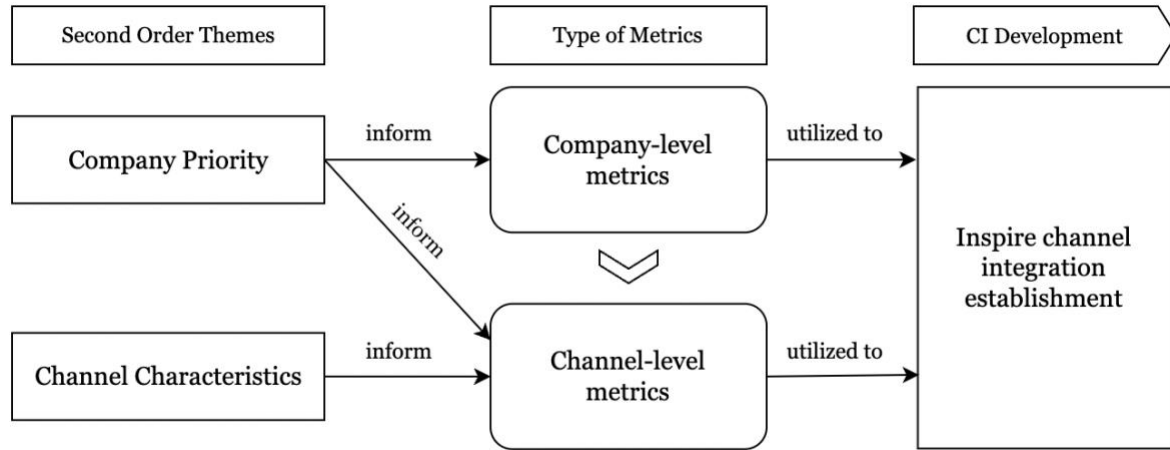


Figure 5. Company- and Channel-level Metrics to Inspire CI Establishments

5.1.2 Channel-level Metrics to Identify CI Mechanisms

After the decision to establish CI has been made, the channel-level metrics are utilized to identify CI mechanisms. Not all company-level metrics are derived into channel-level metrics for all channels. It is possible for a channel only to have channel-level metrics of particular categories of company-level metrics due to the various relevancy of each channel to achieve the channel-level metrics. Channel relevancy is attributed to channel characteristics, channel span-of-control, and channel analytics capabilities.

First, channel characteristics affect the selection of channel-level metrics that they are measuring. Two channels with similar characteristics are likely to measure similar channel-level metrics and hence, more likely to forge a CI or involve in CI together. Moreover, the similarity in characteristics helps the channels identify what they should do in CI, when, and where because they have common skills and knowledge that enable them to collaborate (Kretschmer & Puranam, 2008).

For example, Retailer A's e-commerce and retail channels are characterized by their D2C models and thus serve the same group of customers, namely, the end-consumers. Based on our empirics, both e-commerce and retail channels measure sell-through,

the ratio between the number of purchases and the number of visits. By mapping the journey of their shared target group and analyzing their channel-level metrics achievement, both channels can pinpoint the unfulfilled gap of the end-consumer's shopping journey and sit together to identify resources from both channels to fill the gap. These channels have established several ongoing CIs to tackle product assortment availability and delivery challenges. For example, they collaborate in 'Endless Aisles', a form of showrooming initiative, and "Click and Collect", a form of webrooming initiative. Another illustration comes from Retailer A's online channels. Social media channels collaborate with e-commerce and marketplace channels in influencer referral campaigns. The main idea of this CI is to lock the consumers within the company's online environment throughout their shopping journey, from awareness to purchase. This way, the channels are working together to convert the consumer's visit to the company's social media to purchase in the company's online channels as seamlessly as possible.

Second, channels with higher span-of-control are more likely to conduct actions that affect their channel-level metrics than ones with lower span-of-control. Section 4 mentions that D2C channels have more control over their consumer experience and marketing mix than wholesale channels. The examples of CI are also more apparent in D2C than in wholesale channels. The possible explanation is that these channels can flexibly adjust their mechanisms according to what they perceive best. Therefore, when there is an opportunity to collaborate in a CI, they can suggest CI mechanisms based on their assessments of adjustments and willingness to adjust. They can also monitor their channel-level metrics whenever they want because they own the measurement system. Since channel-level metrics play a vital role in letting the channel managers know what works best in their own channels, such as what metrics or activities to control and how to control them, this flexibility to monitor and analyze metrics gives them more confidence during the CI mechanism's development.

For instance, D2C channels can freely decide on product assortments they will sell to the end consumers and can accurately calculate their costs. Therefore, they can formulate campaigns and agree on the amount and timeline of promotional activities together because they can sell the same product and find the optimum discount amount that maximizes the number of purchases in e-commerce and retail store channels. On the other hand, for the wholesale channels to join the campaign, they

first must convince their wholesalers to purchase the same product assortments, which can be difficult due to the different objectives and interests of the wholesalers. Even when the wholesalers sell the same product, they might have differing views on the discount amount due to their different profitability calculations. In short, it is more complex for wholesale channels, with their limited control, to initiate and engage in experimental activities like CI.

Third, channels with higher analytics capabilities are more able to collect and analyze channel-level metrics and perform metrics-driven decision-making. They are more aware of their 'position', what led them there, and where to do improvements. Thus, these channels are more capable of identifying CI mechanisms. The more able a channel is to collect accurate data, the more likely the channel is to know whether they are in a good or bad position in its business. Hence, the channel is more willing to act on its position. Both companies indicate that the e-commerce channel is the most capable channel for transactional and consumer behavior analytics, as reflected by the number of channel-level metrics they track.

Furthermore, the higher a channel's ability to perform analysis to produce meaningful insights from the collected data, the more potential the channel has to pinpoint the facilitating and inhibiting factors that led to a specific result. For instance, Retailer A's e-commerce channel manager was aware that the channels' number of transactions is lower for products with fewer product ratings. The analysis of these collected data showed that there was, indeed, a linear relationship between the number of product ratings to the number of product transactions. Therefore, the manager decided to develop a CI mechanism that could increase the number of product ratings. Lastly, the more able a channel is to create insight-driven decisions, the more confident it is to do trials-and-errors for developing CI mechanisms. Continuing the product rating example from Retailer A's e-commerce channel, the manager identified that transactions in the retail channel were not as tightly related to the number of product ratings compared to e-commerce because the consumers can experience the product directly by themselves rather than relying on other consumers' opinions. The manager thought that this phenomenon was an opportunity to increase the number of product ratings in the e-commerce platform since the ratings given by these consumers can be more product-specific. Therefore, the manager decided on a CI mechanism in which the e-commerce channel collects ratings for every purchase made in the retail channel.

To summarize, channel managers utilize channel-level metrics to identify mechanisms of the to-be-established CI, as illustrated in Figure 6. Once the CI mechanisms are set, the channels can implement the CI, and the stage of CI development is complete.

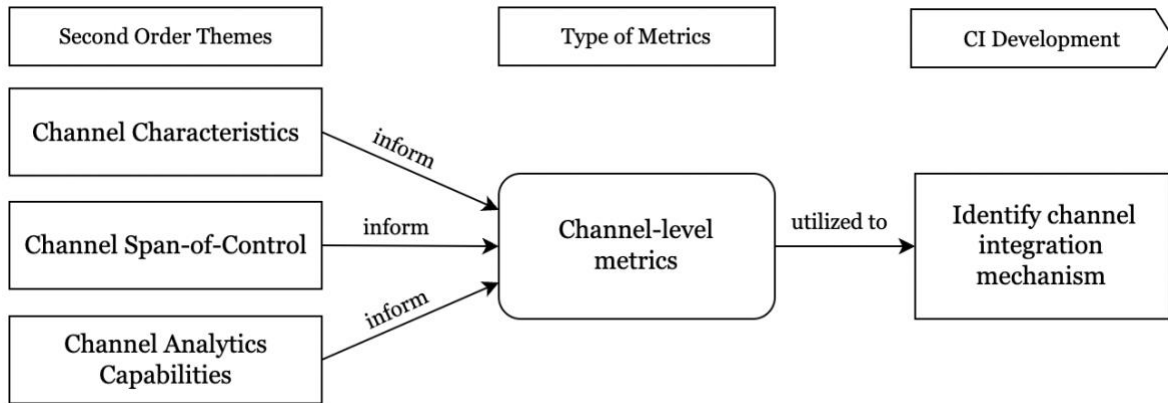


Figure 6. Company- and Channel-level Metrics to Inspire CI Establishments

5.2 BPM in CI Implementation

5.2.1 CI Outcome Metrics to Evaluate CI Performances

After the development of CI, participating channels implement the CI according to the defined mechanisms. The implementation aim is to enhance either company- or channel-level metrics which have been pinpointed in the development stage. However, using these metrics to evaluate CI performance would cause local sub-optimization. It means that the CI is implemented to maximize the achievement of only a particular participating channel. Therefore, they construct CI outcome metrics to measure the overarching outcome of each CI, ensuring the participating channels "look at the bigger picture" and focus on CI's purpose. It is aligned with the rationale for developing project metrics proposed by Chirumalla et al. (2013).

Influencer referral campaign, one of the CIs in Retailer A illustrates this use of CI outcome metrics. The CI originated in Retailer A's social media channel, which aimed to increase its channel-level brand awareness. The CI's mechanism was identified in the development stage and required Retailer A's e-commerce and marketplace channels to collaborate. Although the e-commerce and marketplace channels also have brand awareness as their channel-level metrics, they were measured separately from the social media channel's metric. If one of these channel-level metrics were used

to evaluate the CI, the channels would push the mechanism so that the consumers will stay longer on their channels, which can cannibalize the other participating channels. Therefore, the chosen CI outcome metric was the revenue from transactions per viewing consumers. The revenue was collected from the e-commerce and marketplace channels, while the number of viewing consumers was gathered from social channels. This metric ensures that the channels work together to make the campaign's content attract consumers' attention and the transition from social media to the transaction channels as smooth as possible.

The influencer referral campaign example is a use case of quantitative CI outcome metrics to evaluate CI performance. Both retailers chose quantitative CI outcome metrics since they are relatively easy to reflect. By having numbers, the channel managers can estimate the contribution of CI to their channel-level metrics through calculation. They also choose numbers because they are easier to argue in company-wide CI evaluations for resource and investment allocations. Therefore, from a company perspective, CI outcome metrics evaluation is crucial to decide what to do with the CI: continue, adjust, or abort. Specific to Retailer A, quantitative financial metrics such as revenue and cost are explicitly stated in their strategic project initiatives investment scheme and end-of-season meetings. Therefore, it is intuitive to set these metrics as CI outcome metrics.

Nevertheless, another CI from Retailer A demonstrated the use case of qualitative CI outcome metrics. The CI aimed to improve Retailer A's brand visibility in critical media across the market in which Retailer A is present. The participating channels in this CI were public relations, social media, and e-commerce. These channels chose the quality of articles in critical media, a qualitative brand metric, as the CI's outcome metric. They perceived that their focus was on relationships with the consumers considering the purpose of the CI. By assessing the quality of articles, the channels could evaluate whether they published articles with a suitable message to build Retailer A's brand visibility they wanted. Numerical data from quantitative CI outcome metrics can not fulfill this evaluation purpose.

To summarize, CI outcome metrics are utilized to evaluate CI performance (Figure 7) both among participating channels and in wider company settings considering their focus on achieving the overarching CI's goal rather than optimizing participating

channel performances. They can be quantitative or qualitative metrics, depending on the purpose of CI evaluation.

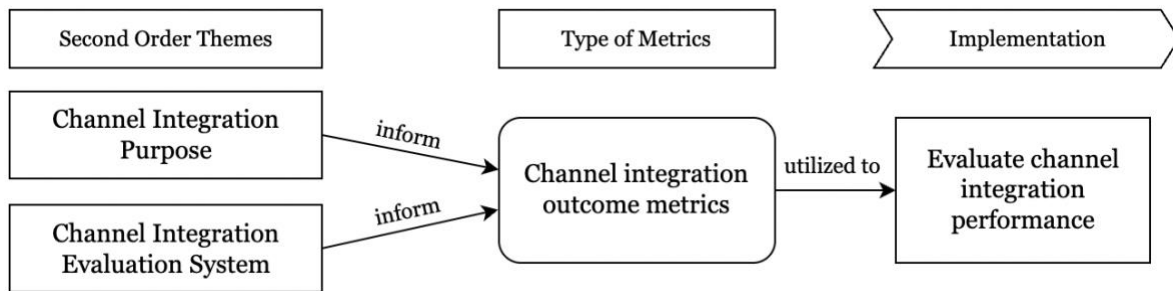


Figure 7. CI Outcome Metrics to Evaluate CI Performance

5.2.2 CI Process Metrics to Improve CI Mechanisms

Parallel with evaluating CI performance, participating channels are also improving CI mechanisms. The empirics showed that CI mechanisms are iterated through deliberate learning aided by CI process metrics. In contrast to CI outcome metrics that explicitly reflect the ultimate goal of CI, CI process metrics measure factors that funnel to or lead to the achievement of the outcome metrics. CI process metrics provide more granularity than CI outcome metrics, enabling participating channels to analyze the CI mechanism step-by-step. Therefore, participating channels can confidently identify room-for-improvements for CI mechanisms, such as focusing on a specific activity that contributes the most to the success or failure of CI outcome metrics.

Take Retailer A's 'Endless Aisles', for example. The mechanisms of 'Endless Aisles', such as the order flow from within an offline store to e-commerce, are still under a develop-and-test loop. Retailer A's e-commerce and retail channels are still working on identifying critical factors to optimize the usage of 'Endless Aisles' and improving them. They also defined a market to test the CI as a scope of experimentation to minimize the risk and cost of CI implementation. To aid the experiment, they developed CI process metrics consisting of quantitative and qualitative forms, and they monitored them closely as the basis for re-designing the order flow, for example, to alter the sequence of processes or positions of web components. Examples of quantitative CI process metrics are task success, the average time to complete a task, and the error rate. Meanwhile, the qualitative CI process metrics are feedback from

the staff in pilot offline retail stores. The quantitative metrics were gathered automatically by the design of the platform under development, while the qualitative metrics were collected through usability testing. Due to the nature of data collection and the segregation of work in CI implementation, there were differences in accessibility toward the metrics.

In this example, the user experience (UX) team had first-hand access to the metrics since it is a part of Retailer A's e-commerce channel, which owns the platform, and is the executor of usability testing. Furthermore, in the iteration cycle, the team was appointed as the initiator and designer of the CI's improvements. Nonetheless, the iteration cycle still required other e-commerce and retail store teams to participate. Therefore, the UX team had to communicate the metrics to those teams.

Learning about CI implementation by participating channels is crucial to maximizing the utilization of CI process metrics. As exemplified above, the metrics' communication was the learning's starting point. It is essential for communication to not only occur but also facilitate knowledge-sharing between the teams under participating channels. Both retailers share knowledge about CI process metrics through formal and informal communication. Formally, the participating channels discussed CI process metrics in weekly or monthly meetings. In the discussion, they identified issues that hinder the achievement of CI process metrics, prioritized them, and formulated potential solutions. Aside from meetings, Retailer A also established a digital platform where the metrics are published and anyone from participating channels can comment on that. For informal communication, both retailers favor interactions through working tools such as e-mail and direct messaging. Retailer B highlighted the benefit of informal communication as the participating channels perceived that they could collaborate more flexibly and responsively.

To summarize, CI process metrics are utilized to improve CI mechanisms by the participating channels (Figure 8) through both formal and informal knowledge-sharing processes. Combinations of quantitative and qualitative metrics are used to provide the "know-what" and "know-why" about the CI.

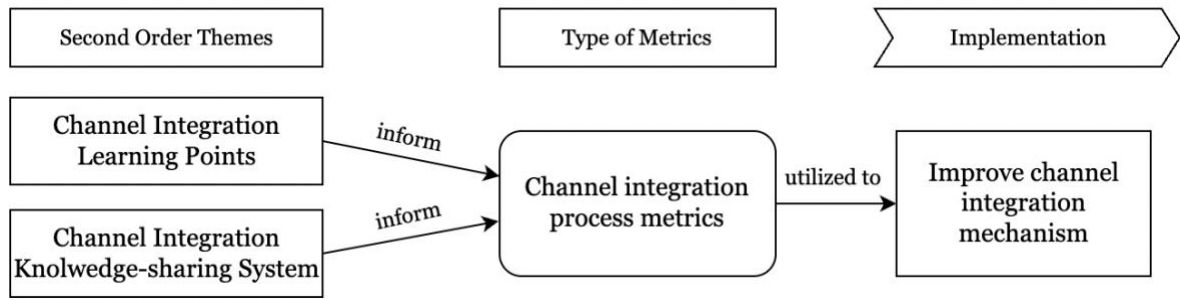


Figure 8. CI Process Metrics to Improve CI Mechanism

6 Discussion

This chapter concludes how this study fulfills its purpose and expected contribution. First, we discuss how the findings of our study answer our research question (6.1). Second, we discuss how our study contributes to the theoretical (6.2) and practical (6.3) areas of channel integration within the retailing context. Finally, we discuss limitation of our research (6.4) and potential research areas in the future that might extend and/or test the findings of this study (6.5)

6.1 Answering the Research Question

The purpose of this study is to integrate concepts and frameworks of BPM to lay out the process of CI management within a retailer for tackling CI organizational challenges by answering the research question:

“How are BPM used within the development and implementation of channel integration in retail companies?”

Based on our analysis, we compose a framework for BPM utilization in CI development and implementation (Figure 9). CI comprises four key processes: 1) CI establishments, 2) CI mechanisms identification, 3) CI evaluation, and 4) CI mechanisms improvements. The first two belong to the CI development stage, and the rest belong to the implementation stage. Furthermore, there are four types of BPM used in CI, namely: 1) company-level metrics, 2) channel-level metrics, 3) CI outcome metrics, and 4) CI process metrics.

In CI establishments, channel managers utilize company-level and channel-level metrics to give them directions, indicate their channels' performances, and inspire them to look for opportunities to improve their channels' performances, such as CI. The number of company-level and channel-level metrics also affects the number of CI establishments. Furthermore, the similarity of channel-level metrics also helps to determine which channels to establish CI with. Once the channel managers decide to establish a CI, CI development continues to CI mechanisms identification. Here, the channel managers utilize channel-level metrics again since it is related to a channel's characteristics, span-of-control, and analytics capabilities. When two channels have similar characteristics, they are likely to measure similar channel-level metrics and have common skills and knowledge. These channels can then use these similarities to

recognize activities, timing, and actors (mechanisms) that would benefit CI. Channels with a high span-of-control over their consumer experience and marketing mix have more flexibility to assess the adjustments required to optimize CI mechanisms and access the knowledge they need. Thus, they are well-informed and capable of composing CI mechanisms, hence, have more feasibility to suggest and adhere to CI mechanisms. Lastly, compared to those with low analytics capabilities, channels with high analytics capabilities are well-oriented about their positions and driving factors since they are better at collecting, analyzing, and performing decision-making based on channel-level metrics. Thus, they have more motivation, knowledge, and confidence to do trials-and-errors for developing CI mechanisms.

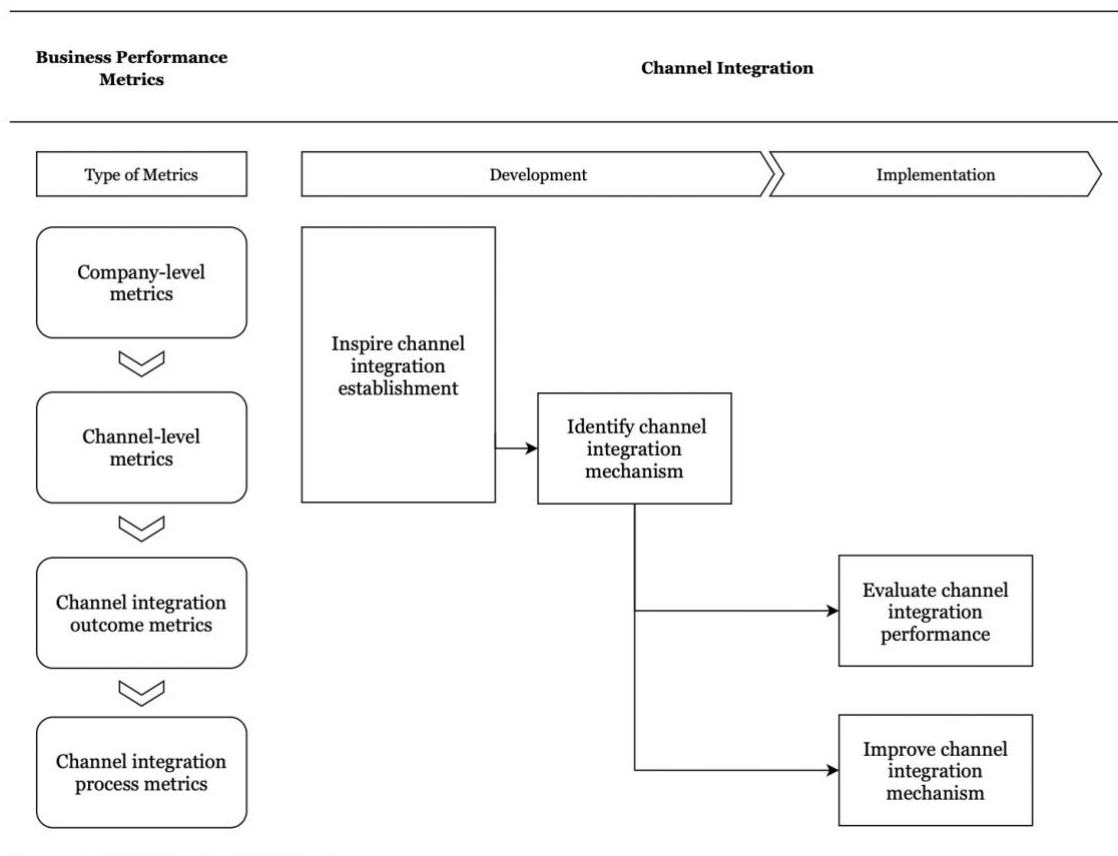


Figure 9. Final Framework

Once the CI mechanisms are set, the participating channels proceed to CI implementation. In CI evaluation, participating channels use CI outcome metrics to evaluate CI performance. This metric is preferred to channel-level metrics to prevent local sub-optimization within a particular channel. Furthermore, these metrics could be quantitative or qualitative, depending on the CI's purpose. Usually, these metrics

are quantitative when CI's purpose is financial and the CI evaluation system requires numerical justification. Meanwhile, qualitative CI outcome metrics are commonly used when CI's purpose is related to something more abstract such as branding and consumer experience and the CI evaluation system demands a richer depiction of the CI implementations. In addition, company-level managers, for example, from the board of investments, also use these CI outcome metrics to decide (dis)continuation of the CI and allocate resources. Finally, in CI mechanisms improvement, participating channels use CI process metrics to aid their learning about what drives or hinders the achievement of CI outcome metrics. These metrics provide more granularity to analyze CI mechanisms in detail. CI process metrics could be quantitative and qualitative, depending on CI mechanisms, what points of learning the participating channels need to know and how the CI knowledge-sharing system is. The knowledge-sharing between participating channels through formal and informal communication is especially focal to ensure that participating channels are responsible for the learning points, learn from them, and take actions based on them.

6.2 Theoretical Contribution

Literature on multi- and omni-channel retailing has highlighted the focal role of CI and the challenges of its management. Nevertheless, there is a need for research that analyzes CI management within a retail organization (Grimonpont, 2016; Gereia & Herskovic, 2022). This study answers this need by focusing on the utilization of BPM in CI development and implementation process using case studies from retail companies based in Sweden. The theoretical contribution of this study is as follows: 1) contribution to CI literature, 2) contribution to BPM literature, and 3) role of connecting CI literature with BPM literature.

This study investigates CI exclusively using a retailer-centric perspective. Most CI literature that has been conducted takes a consumer-centric perspective, which cumulatively identifies types of CI and its benefit for consumers. Some literature takes on both perspectives, which results in surface-level findings about the organization of CI. Meanwhile, CI literature dedicated to discussing CI management remains lacking, as demonstrated in section 2.1.2. By taking the retailer perspective, the findings of this study shed some light on the question of "how CI occurs within retailers?", complementing previous literature that answered, "what hinders retailers from

performing CI?". Furthermore, this study introduces the concept of CI as an intra-organizational activity in itself. Previous literature has discussed CI as the result of an intra-organizational activity instead, such as integrated promotion and transaction (Oh et al., 2012; Das & Chowdhury, 2012) or a "degree of integration among channels" (Zhang, 2018; Cao & Li, 2015). Consequently, research on measuring the effect of different degrees of CI on consumer shopping behavior and retailer business performance has grown. By viewing CI as an independent intra-organizational activity rather than purely as an outcome of such activity, this study provides a more nuanced view of CI as either a business process or a project, opening a new pathway to discuss CI from another angle.

For BPM literature, this study provides empirics on utilizing different types of metrics within an organization (Ailawadi & Farris, 2017). Thus, our findings oppose the simplistic recommendation of ignoring channel-level metrics by replacing them with CI metrics (Cocco & Demoulin, 2022; Peltola et al., 2015; Yrjölä et al., 2018). Referring to the final framework (Figure 9), the development and implementation of CI involve the use of company-level metrics, channel-level metrics, CI outcome metrics, and CI process metrics. Each type of metric supports CI in different key processes. These metrics are hierarchical in nature, meaning that the company-level metrics are derived into the later types of metrics, thus supporting the concept of the multi-level metric by Parida et al. (2003). The use of financial, brand, and consumer metrics in both retailers also supports the concept of metric categories by Chirumalla et al. (2013). Furthermore, the concept of perspective of metrics (Okes, 2013; Gestrøm-Rode et al., 2022) and data-type of metrics are also exhibited in all metrics involved in CI development and implementation. Next, the findings also demonstrate the function of metrics to link strategy and operations within the CI context (Otley, 1999; Kaplan & Norton, 2008; Eckerson, 2010; Turban et al., 2015). The findings reveal that retailers translate their company priorities into metrics that guide overall CI development and implementation key processes. CI establishment and evaluation can be considered the strategy part of the business performance measurement frameworks, while the CI mechanisms development and improvement are the operations part. The findings reveal that BPM aid relationships between the two parts.

Finally, this study connects CI literature with BPM literature. This approach has never been used in prior research to the best of our knowledge. With this approach, this study

validates the possibility of the interplay between the two literature fields and delivers a processual view of CI management within a retailer that addresses the organizational challenges of CI management.

6.3 Practical Implications

Since no "all-purpose" metric gives all information required in CI development and implementation, this study creates a guideline for retailers to use four types of BPM along the process. Furthermore, we identified several recommendations for retailers to develop and implement high-quality CIs. During CI establishment, we recommend that retailers have a comprehensive set of company priorities, which are adequately translated into a set of company-level and channel-level metrics. To ensure the comprehensiveness of company priorities, retailers could refer to their values and capture the existing and future trends. By doing so, channel managers will have higher motivation and inspiration to take action, such as performing CI.

During CI mechanisms development, we suggest that retailers 1) pay more attention to the variety of their channels' characteristics, 2) increase their channels' span-of-control, and 3) improve their channels' analytics capabilities. Channels with similar characteristics are more likely to forge CI together. Therefore, it would be beneficial for retailers to have at least more than one channel with similar characteristics. While it is not a problem to increase control in D2C channels, it is a challenge for wholesale channels. Therefore, retailers should invest in creating D2C channels whenever feasible. Nevertheless, wholesale channels can assess their partners and prioritize those who give more flexibility to control consumer experience and the marketing mix. In addition, they can put their efforts into building high-quality relationships with the wholesalers to gain their trust and, eventually, allow the retailers more control. Through these, channel managers and their teams can have more ability and confidence to develop CI mechanisms.

During the CI evaluation, we proposed that retailers recall the establishment of CI to compose a clear definition of CI purpose. With a clearly-defined CI purpose, channel managers can identify appropriate CI outcome metrics that represent the ultimate goal of CI establishment. It is critical to have appropriate CI outcome metrics to indicate the CI achievements correctly because they are used to decide the continuation of CI. One possible way to do this is by achieving a shared understanding of CI purpose

among the participating channels, then having them reflect on what it implies to their channel activities and channel-level metrics. From there, build *as-is* and *to-be* conditions before and after CI to pinpoint the overarching objectives that should be measured as CI outcome metrics.

During the CI mechanism improvement, we encourage retailers to nurture their knowledge-sharing culture aided by CI process metrics. In parallel with CI outcome metrics, CI process metrics should trigger questions about what went as planned or not in CI mechanisms. These questions should be the main point of discussions in formal and informal communications across channels. The possible challenge here is how to promote data-driven mindsets across participating channels' team members because it is easy to get lost in day-to-day operational activities. Therefore, assigning a person-in-charge to facilitate these learnings to happen is vital.

6.4 Limitations

Due to the qualitative approach, our final framework is not statistically tested to justify its generalizability. We do not claim that our final framework consists of an exhaustive list of steps and the use of BPM in CI development and implementation. As our framework is derived from triangulation using two polar-opposite FMCG retailers in Sweden, we acknowledge the possibility of different ways to categorize FMCG and triangulation that can result in different angles or additional steps in the use of BPM in CI development and implementation. Finally, despite our effort to use multiple sources of data, our findings are still subjective to the individual perceptions of researchers and interviewees.

6.5 Future Research

For future research, exploring CI as a different means than process or result would be interesting. For example, CI can also be discussed in-depth from a strategy perspective. That includes which CI is generating the best result to accomplish a certain strategic goal, which CI clashes with resource allocation, diminishing the effectiveness of strategic goal achievements, and which CI works best for different target customers. The answers to these questions can complement our findings about using BPM to develop and implement CI so that retailers can effectively and efficiently design CI according to their strategy.

Also, future research can replicate the study in companies with higher integration levels. This study only discussed empirics from companies starting to integrate their channels, which might limit the analysis of mature CIs. Future researchers can examine our final framework in retailing companies by applying it to analyze mature CI, for example, those implemented continuously for more than a year. Thus, testing the generalizability of the framework.

Comparing successful and unsuccessful CIs can be valuable to explore what drives the different results. From the study, we discovered that the channel managers would translate specific company priority into the related company- and channel-level metrics, which inspires the channel managers to establish CI. Thus, future researchers can investigate company- and channel-level metrics examples most likely to drive successful CIs. The same goes for CI outcome and CI process metrics. Furthermore, future researchers can clarify whether CI is closer to a project or business process and which one comes to fruition the most. By doing so, the determinants can advise managers on what to avoid and promote. Thus, it helps managers develop and implement CI more successfully.

Finally, the emergence of new technologies, such as metaverse, might impact the mechanism of CI. It would be interesting to analyze further what aspect of CI will be impacted. As happened before, new technologies might introduce new channels. For example, the metaverse can be a new marketing and sales channel with a unique business model and transaction systems. It can open new opportunities to present and purchase a product to consumers. Therefore, new metrics are required to analyze the channel's performance appropriately. Thus, future researchers can explore whether our final framework remains applicable.

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Appendices

Appendix A - Interview Guideline Example

Prompt	Topic
<p>Before we start the interview, we want to let you know what:</p> <ul style="list-style-type: none"> • We will record the interview. • It is voluntary to participate in the interview. • The answers will be kept confidential and anonymised. • The interview will be recorded and the researchers are the only ones with access to the recorded version. When the recorded version is transcribed it will be deleted. • Upon the completion of the project, the transcripts will also be deleted. 	Ethical aspects of the interview
<ul style="list-style-type: none"> • Do you mind introducing yourself and your role in Company X? • What are the sales and marketing channels that Company X have? 	Introduction
<ul style="list-style-type: none"> • What metrics do you use to measure the performance of your channel? • Why do you choose these metrics? • How does your channel collect data for these metrics? Who is responsible for that? • How does your channel analyze data for these metrics? Who is responsible for that? • How does your channel make decisions based on the data? 	Performance metrics used within the channel
<ul style="list-style-type: none"> • Can you recall any projects that involve more than one sales channel? For example, e-commerce in collaboration with the marketplace channels? • Can you elaborate more on that project? • How did you design those projects? • What motivates you to design those projects? <p>If there is more than one integration project</p> <ul style="list-style-type: none"> • How do you prioritize the project? Any relationship with the metrics you mentioned earlier? 	Channel integration initiatives development and implementation

<ul style="list-style-type: none"> • How do you allocate resources to channels? Any relationship with the metrics you mentioned earlier? <p>Regarding the evaluation of the project</p> <ul style="list-style-type: none"> • How do you measure the achievements of the projects? • How do you identify what factors contribute to the success/hindrance of your project? • How do you communicate the progress of the initiative? • Can you give an example when you add new metrics or adjust the old metrics after doing adjustments in your projects? What was the reason? 	
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Appendix B - List of Channel Integrations in Retailer A and B

Retailer	Channel Integration	Origin	Shaping	Choice	Implementation
A	Endless Aisles	Retail store channel	Developing appropriate integration platform, operational mechanism, and incentive schemes in piloting market areas.	Retail store channel and e-commerce channel were working together to select team members.	Lateral team from retail store and e-commerce channels.
A	Product Rating and Review Integration	E-commerce channel	Analyzing e-commerce channel's metrics driver, then, scouting opportunity to increase drivers from other channels.	E-commerce channel approached retail store channel.	E-commerce channel fully-own the channel integration, including responsible for developing and operating the mechanism, as well as monitoring the channel integration metrics. Periodic coordination with retail store channel for synchronization of activities and metrics updates.
A	Influencer Referral Campaign	Public relation channel	Developing campaign's content.	Public relation channel were working together with other sales and marketing channels.	Lateral team from public relation, social media, e-commerce, and marketplace channels.
A	Omni-channel Execution Plan	Channel marketing function	Identifying the need to integrate all sales and marketing channels and the mechanism to	Channel marketing function head assigned all channels to work	Channel marketing function is responsible to lead and evaluate the mechanism while the channels are doing the implementation.

			ensure the delivery of "unified look-and-feel".	together.	
A	Click-and-collect	E-commerce channel	Developing appropriate integration platform, operational mechanism, and incentive schemes in piloting market areas.	E-commerce channel approached retail store channel.	E-commerce channel is responsible for improving the CI mechanism with feedbacks from retail store channel.
A	Newsletter Subscription from QR Code	E-commerce channel	Analyzing e-commerce channel's metrics driver, then, scouting opportunity to increase drivers from other channels.	E-commerce channel approached retail store channel.	E-commerce channel fully-own the channel integration, including responsible for developing and operating the mechanism, as well as monitoring the channel integration metrics. Periodic coordination with retail store channel for synchronization of activities and metrics updates.
B	Newsletter	E-mail Marketing channel	Developing newsletter system and campaign.	E-mail marketing channel approached sales channels.	E-mail marketing channel fully-own the channel integration and monitoring the channel integration metrics. Periodic coordination with sales channels to develop content and review metrics updates.