

DESIGN DYNAMICS

Navigating the new Complex Landscape of Omnichannel Fashion Retail

edited by Valeria M. Iannilli, Alessandra Spagnoli



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6. Retail Design Tools: An Omnichannel Retail Design Process Conceptualisation

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6.1 Introduction

Within the rapidly evolving retail landscape, competence domains within the retail system continually redefine their roles, hierarchies, and intervention models. Also, the quick changes in the retail industry have sparked academic interest and increased demand for experts in the field. With the lines between conventional and online shopping becoming increasingly blurred, digitalisation has emerged as a significant force behind this transition.

As a unique multidisciplinary design profession, retail design currently includes creating both virtual and physical locations for selling goods, services, and experiences to customers. The duty of the retail designer has changed in this changing environment (Cheetham & Chivers, 1996; Iannilli et al., 2019; Quartier et al., 2020). Moving from a multidisciplinary to an interdisciplinary approach, retail design necessitates collaborative teamwork, with various professionals working in concert to address the complexities of omnichannel retail and beyond (Quartier et al., 2020). Claes et al. (2017a, 2017b) set new requirements for the retail designer in the age of phygital, asserting that now more than ever, designers should assume a holistic approach aiming at transdisciplinary work, which is necessary to manage the complexity of customer experience. The authors further argue that the competencies to be integrated into retail designers' skills are: understanding how digital technologies can be applied and how they work; the ability to generate creative ideas; the ability to think across

channels starting from the customer journey and technology integration, considering variables and conditional factors. To this regard, it is important to underline that, although aiming at interdisciplinarity and transdisciplinarity (according to the different academic positions), the present retail design process can surely be categorised as multidisciplinary.

In this context, the conceptualisation of the process and tools for retail design has been developed from a design perspective and from a design culture background in order to provide a contribution to the retail discipline in the broad sense.

6.2 The Conceptualisation of The Process and Tools – Methodology

The new directions in retail experience design raise questions about which tools need to be integrated into the retail experience design process. As previously remarked, being a highly transformational field, the expertise domains in the retail sector are always changing in terms of their functions, structures, and methods of intervention (Cheetham & Chivers, 1996; Iannilli et al., 2019; Quartier et al., 2020). The complex intertwining demands that require not only spatial design skills but also marketing, strategy, branding, communication, service, management, omnichannel and digital converge within a system that requires interdisciplinarity, which can be fuelled by design tools integrated into the design process.

In this context, a reflection on the omnichannel retail design process and on the tools that are being used during its phases is presented in this work, with the intent to map the state of the art and come to a conceptualisation of the process and tools for a better understanding of the current retail design framework and its pain points and spaces for the evolution of the contemporary omnichannel retail design process.

The conceptualisation of the process and tools for retail design illustrates the correlation between retail design process phases and the corresponding tools and actors involved in the process, with a specific focus on highlighting how and when the use of tools is aimed at fostering interdisciplinary work.

The conceptualisation of the process and tools for retail design develops vertically, showing first the design process phases divided into six as follows (shown in Fig. 6.1 and 6.2 in the black boxes). The first phase is the *Brief*, which involves thoroughly instructing or informing someone in preparation for a task to be “solved”. The next phase is *Research and Analysis*, where data from the context and case studies is collected and analysed to gain insights and inspiration for the project. Following there is the *Concept Generation* phase in which ideas take shape but remain somewhat abstract. Afterwards, thanks to the *Project Development* the concept becomes more concrete, and technical skills come into play to make the project achievable. Project Development is followed by the *Project Implementation* phase, in which issues and pain points in the developed project become apparent and improvements are made. Finally, the completed project undergoes a systematic and objective assessment thanks to the *Evaluation* phase.

It is important to emphasise that although the phases are represented here as a linear and highly codified process, during design practice, they are subjected to a continuous process of proofing and iteration, proper to the design discipline, oriented towards questioning the results and outputs obtained cyclically and systematically. The same happens naturally, and even more so within the sub-phases.

In each primary phase of the retail design process, there is a set of more detailed sub-phases, depicted within the white boxes of Fig. 6.1 and 6.2: Within the *Understanding Design Brief* sub-phase, a comprehensive analysis is conducted to scrutinise the problems and future requirements of the project. Following this, the *Composing Design Brief* sub-phase involves the collection of data from the previous sub-stage, which is then used to construct a comprehensive project brief. In the *Cross-sectoral Blue-sky Research* sub-phase, an open and non-structured process unfolds, aimed at establishing connections among various pieces of information. The primary goal is to unveil and systematise a range of inputs and stimuli that prove valuable to the project’s creative process. Progressing, the *Contextual Analysis* sub-phase strives to gather all relevant information concerning the project’s surrounding context. This contextual understanding forms a crucial foundation for comprehending subsequent phases more effectively.

**OMNICHANNEL RETAIL DESIGN PROCESS
CONCEPTUALISATION**

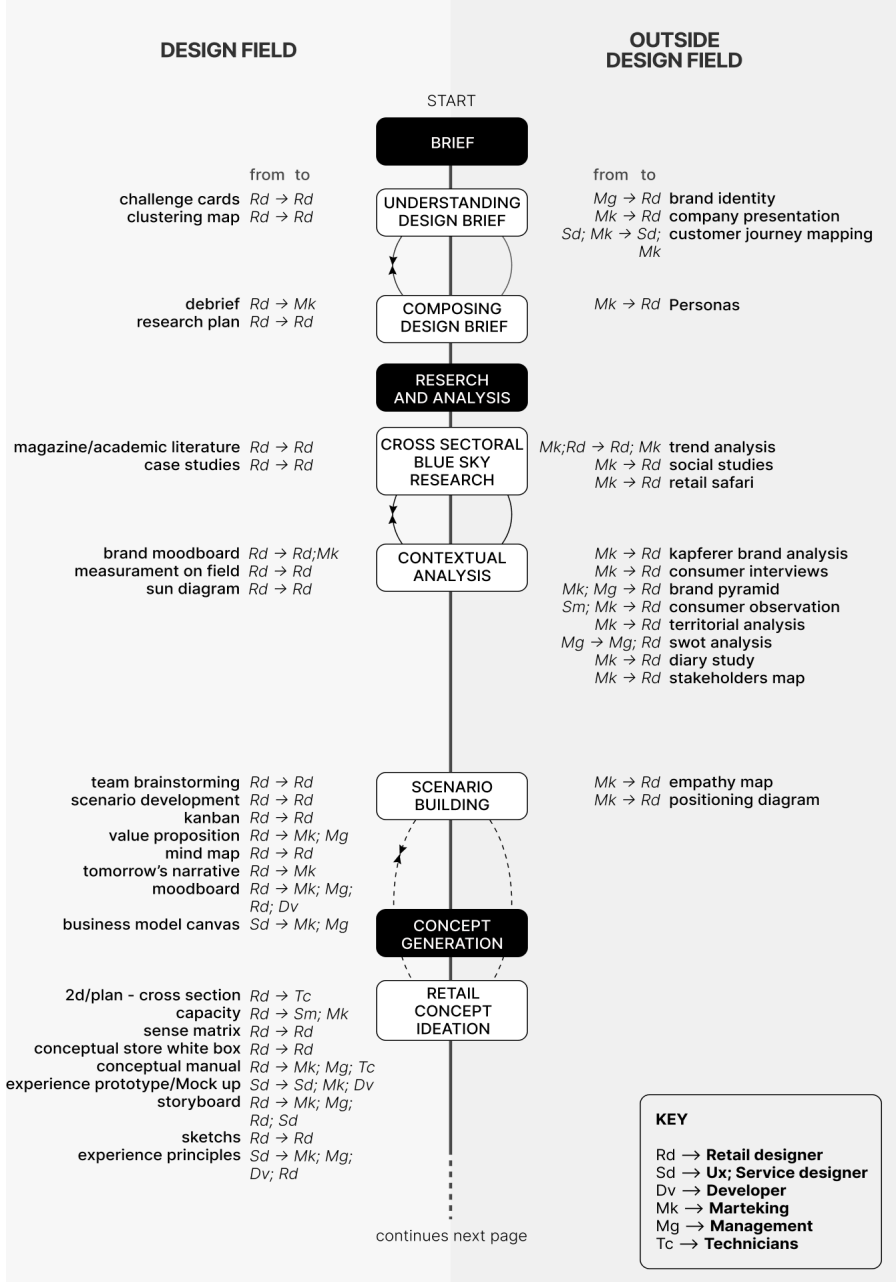


Fig. 6.1 Visual Conceptualisation of Omnichannel Retail Process and Tools, part 1 (authors' elaboration).

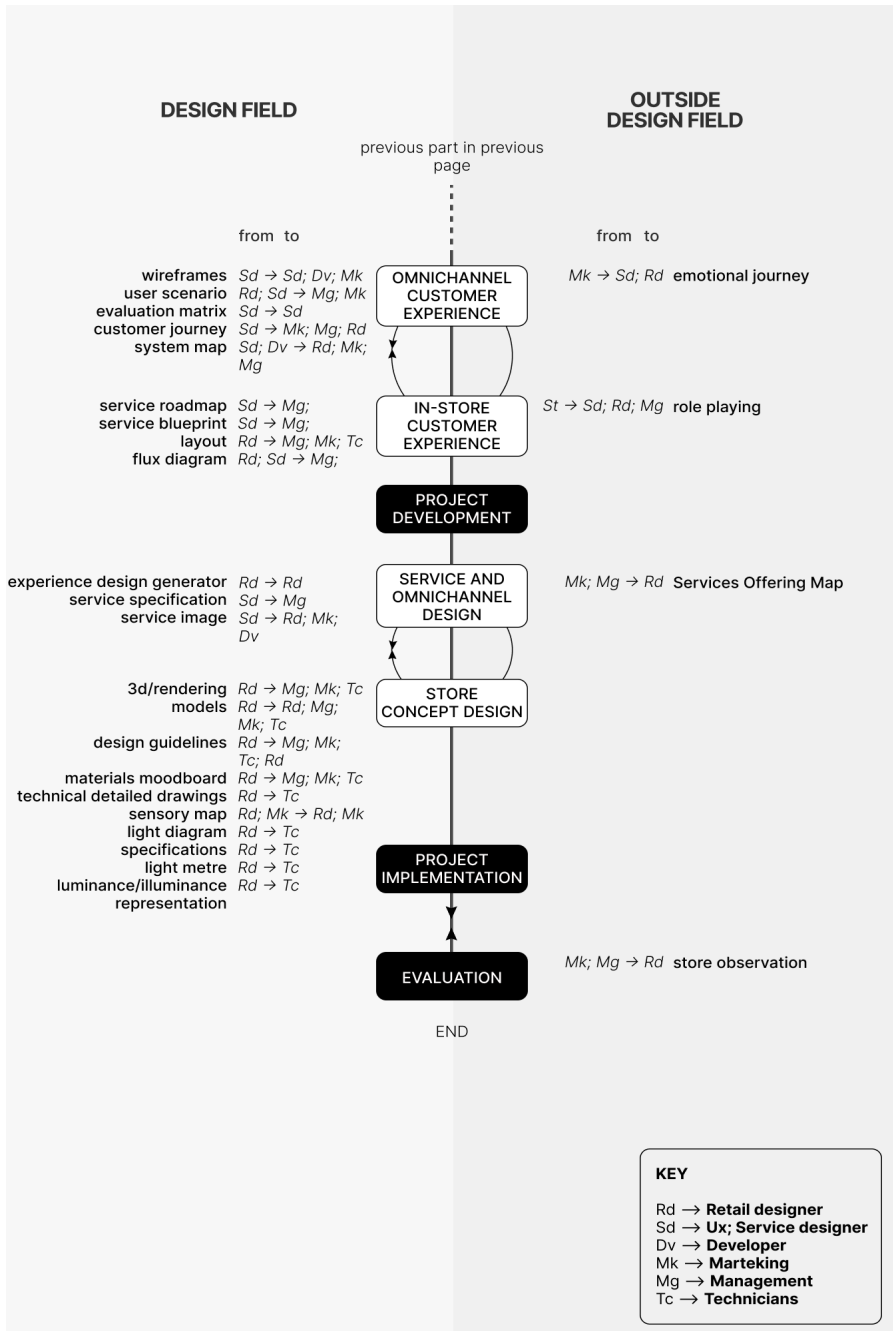


Fig. 6.2 Visual Conceptualisation of Omnichannel Retail Process and Tools, part 2 (authors' elaboration).

The *Scenario Building* sub-phase serves as an early step in the concept creation process, consolidating all available information to explore potential responses to the project's brief. Within the *Retail Concept Ideation* sub-phase, the project's concept takes shape, providing more precise guidelines that will direct the project towards successful completion in the following phases.

In the *Omnichannel Customer Experience* sub-phase, a comprehensive analysis and design are carried out for the customer experience across all channels involved. The ultimate objective here is to ensure a seamless and unified user experience. Following in the *In-store Customer Experience* sub-phase, the focus shifts to outlining the consumer experience within the physical store environment. This includes highlighting the flow of the experience, the touchpoints consumers will encounter, and elucidating the operational mechanisms involved. The *Service and Omnichannel Design* sub-phase places meticulous attention on the aesthetics and finer details of the services provided across various channels. Finally, in the *Store Concept Design* sub-phase, all facets of the project's concept are transformed into the tangible project itself. This final step yields a detailed plan that includes technical specifications and other essential particulars for successful implementation.

The selection of the phases was guided by a combination of models that all followed the design thinking method and systemic thinking. The latter helps to understand the complexity and the constant changes that each designer – in the case of the retail design – has to face, and it guides them into a flexible and collaborative approach with a system, keeping in mind that the complexity depends not only on technology but on the interaction between a multiplicity of innovative actors, each of whom brings a plurality of values, interests, beliefs, needs to the decision-making process (Manzini et al., 2004). One model taken into consideration was developed by John Chris Jones, explained in his book called “designing designing” (Jones, 1991). Another consulted model was the one explained by Vanrie et al., in which they tried to delineate the holistic approach in the omnichannel retail design (Vanrie et al., 2016). All these methods were analysed, combined, and integrated with insight from academia and practice.

Keeping the design point of view on the multiple disciplines operating within the omnichannel retail design process, the conceptualisation is divided into the “design field” and the “outside design field”. This separation happens in order to create neatness in the design mix, which is defined by the interdisciplinarity from which the discipline draws, and the route of elaboration required to reach the desired output (Germak et al., 2008). In the “design field” part, positioned on the left side of the conceptualisation, the tools have been generated into the design sphere or are adequately used by designers. The side of the “outside design field”, on the right, has the tools that are usually proper and used in management and marketing disciplines. The “outside design field” tools are valuable and participatory in the design process, but they are not used directly by designers instead, designers use the results of the tools as insight to organise better and/or develop their work.

The actors involved in the omnichannel retail design process came not only from the design field, as can be deduced from the preceding passages, but also from the field of marketing and management (Claes et al., 2017a; Iannilli et al., 2019). In Fig. 6.1 and 6.2, all the actors presented in the conceptualisation are retail designers, UX/service designers, developers, management, marketing specialists, and technicians. Each of them has been identified with a couple of letters. An arrow illustrates the workflow for each tool in the process. When the arrow moves from one actor to another, it clearly indicates a point where the tools act as facilitators for the exchange of information and ideas between different disciplines during the design process, which was the goal of the present conceptualisation.

Each tool, who uses it and who applies or sees the result of the tool. The main two classifications of actors are designers and stakeholders participating in the design process. The design classification is composed of the specialised figure needed for the creation and realisation of an omnichannel project, both physical and digital, and they are retail designers, UX/service designers, and developers. The stakeholders participating in the design process classification are established by all the figures, outside the design field, needed for the realisation of the omnichannel retail design process, which are management, marketing, and technicians – e.g., electricians.

As the retail sector has evolved, the analysed tools – divided into the suitable sub-phases of the conceptualisation – are from all the fields mentioned previously.

The first set of tools is from the interior design and architectural field (e.g., technical drawings) because retail design is a branch born from those disciplines (Teufel & Zimmermann, 2015). All the spatial tools analysed and chosen were selected to face the increasing challenges in the spatial store design process. The intricacy of this situation arises from the numerous interconnections among various store design factors. A modification to one factor can influence others, triggering a chain reaction. Additionally, the dynamic nature of the retail store design process introduces unforeseen constraints that emerge as decisions are made during spatial planning. Consequently, designers must navigate both emerging and existing constraints, making the retail store design process a challenge of managing multiple interrelated design choices simultaneously (Haug & Münster, 2015). The retail designer, besides spatial skills, needs to have other capabilities due to the new challenges of the market (Quartier et al., 2020) brought by the omnichannel system (Melero et al., 2016), the new technologies involved in the fashion and retail system (Shankar et al., 2021; Verhoef et al., 2015) and the service-dominant logic (Lusch & Vargo, 2006). In fact, other tools were added from different design fields, such as the tools from UX design and service design. Service and UX tools play a vital role since services underpin our daily lives in all domains. They accompany us in numerous daily activities. Among the various professions essential for delivering a service, the service designer takes on the responsibility of crafting the overarching vision. Their task is to ensure that all stakeholders contribute to delivering a gratifying experience for both users and the organisation offering the service (Tassi & Meroni, 2019). UX design and its tools are fundamental to the experience and services on digital channels adopted by the omnichannel retail system. These tools make it possible to design the interaction the consumer will have with digital retail with a given interface. The concept of interface, applied to services, makes it possible to approximate the behaviour of the service to the behaviour of interactive artefacts, and to use the tools developed in the discipline

that deals with their design to identify a new apparatus of conceptual and operational tools for the design of services (Manzini et al., 2004).

As already anticipated, in addition to the tools previously mentioned, there are others categorised as “outside design tools” within the field of marketing and management. In today’s retail design landscape, these disciplines play a pivotal role. From a design perspective, these tools are indispensable, as they generate valuable insights crucial for executing intricate omnichannel retail design projects.

6.3 Tools Role and Functions in The Design Process

To better frame the present research and analyse the omnichannel retail experience design process and the tools related to it, it is important to define the design activity from a cognitive point of view.

Following Buchanan (1999) explanations of the four orders of design it is possible to frame omnichannel retail design in the fourth order, in which design has moved toward outputs that are at the same time tangible and intangible, as for services, systems, interfaces and objects. This implies design, in its fourth order, to be focused on the understanding of the interactions and relationships between the different components of the system it operates in, and on the relationships between the actors involved. To deal with the complexity underlying the system and, in the attempt, to navigate it, representations gain a great importance in the understanding and shaping of systems, and (relating to the specific focus of this work) of the omnichannel retail design.

In the design process building representations offers the possibilities to designers to broaden their perception and understanding of issues (Jones, 1981), and following Lawson (2007) the visual representation of the knowledge accumulated in the process allows new forms of manipulations of the ideas. The same concept of visualisation as a form of understanding and manipulation of ideas is recalled in the theories of Schön (1983), Rittel (1987), Dorst (2009) and Cross (2001).

In the context of the omnichannel retail design process, the visualisations have the purpose of understanding the complexity of the

system and characterize the *designerly* approach to project and interdisciplinary work.

Considering design as the construction of representation, clarifies the well-established presence of tools involved in the work of designers, these may involve different types of input and output representations, from structured texts to final prototype. The production of diverse representations in the design process is typically supported and guided using several tools and instruments that are meant to foster the exploration, conception, implementation, and communication of their ideas in the form of representations (Visser, 2010).

Some tools own coordinative functions as objects of persuasive communication while others help to develop a general understanding of an idea, or a task and others still may work as recall of design principles, approaches, methods, or open questions. Still some others help to maintain the control of the activities and materials while others represent the design decisions to a predetermined level of detail and technical precision (Loução et al., 2013).

It is important to underline that tools are not neutral. They perform as an “Epistemic Machine” that transforms the perception of reality allowing the construction and the interpretation of new phenomenon’s and evoke of design fundamentals, strategies, techniques, or unanswered questions (Loução et al., 2013).

Furthermore, in the contemporary design process of the omnichannel retail experience, the process of design and representation of ideas and solutions is not a solitary path, thus many actors participate in the process and contribute to it by bringing their professional knowledge from different fields. Indeed, the explosion in potential customer touch points and the reduced control of the experience require firms to integrate multiple business functions, including information technology (IT), service operations, logistics, marketing, human resources, and even external partners, in creating and delivering positive customer experiences (Lemon & Verhoef, 2016). This implies the collaboration and exchange of knowledge and information among the different professionals involved in the project.

The intertwining of knowledge brought into the process by the different participants to the project is responsible for its unique interpretation, demonstrating the importance of the contributions of every participant in the process. According to Fischer (2000), the predominant activity in designing complex systems, as omnichannel retail experience can be considered, is that participants teach and instruct each other. Because complex problems require more knowledge than any single person possesses, communication and collaboration among all the involved stakeholders are necessary. In the context of this study, the tools systematised in Figs. 6.1-6.2 also have the function to support and enhance the exchange of knowledge between the different actors participating in the design process, and more precisely, drawing from Fischer (2000): (i) create and capture knowledge in the context of collaborative design activities; (ii) sustain the timeliness and utility of evolving information; (iii) articulate knowledge in a form that other people can understand; (iv) enhance existing knowledge with new knowledge; and (v) create visualisations that help stakeholders think, and help analyse their constructions and artifacts (Fischer, 2000).

The intermediary function of the tools among the stakeholders collaborating in the omnichannel retail design process is central in this study; according to Schmidt and Wagner (2002) in cooperative work, their main function is not informative, but coordinative: they contribute to a more or less effortless and fluent coordination and integration of individual activities in coordinative practices. Indeed following this idea, in the conceptualisations of the tools in the omnichannel design process presented in this chapter (Figs. 6.1-6.2), the authors represent the tools applied to the different phases of the design process, but also more importantly, the exchange of the representation generated by the use of such tools between the different actors involved in the retail omnichannel design process, demonstrating how the different stakeholders face the complexity of this process with the help of tools originating from different disciplines and exchange respective professional knowledge and contribution through these form of shared representation.

Visualization plays an important role in materially mediating the collaborative processes (Simonsen et al., 2014). The visual expression

in a collective setting may nevertheless improve integration of the group process, by facilitating the access to previously expressed ideas, in fact the activities shaped by the tools form a common ground where participants ideally meet on equal terms, with all their differences, and are offered ways to express their opinions and analyse, discuss, model, and reflect on design issues. Visualisation tools have been found to facilitate exchange between the people who experience products, interfaces, systems and spaces and the people who design for experiencing (Sanders & Dandavate, 1999).

Prototypes and other expressions such as sketches, diagrams, and scenarios, are the core means by which the designer builds the connection between fields of knowledge and progresses toward a product (be it tangible or intangible). Prototypes serve to instantiate hypotheses from contributing disciplines, and to communicate principles, facts, and considerations between disciplines. They speak the language of experience, which unites us in the world. Moreover, by training (and selection), designers can develop ideas and concepts by realizing prototypes and evaluating them (Stappers, 2007).

After having framed tools functions and clarified their contributions to the design process, the observation of the conceptualisation proposed in this work, can bring forward a more detailed discussion on the different functions that tools have in relationship to the activities characterizing the omnichannel retail design process phase they belong to.

Referring to *Brief* and *Research and Analysis* design process phases, in these initial phases the designer collects information from the different stakeholders involved and the activities are aimed at the precise definition of requirements, goals and constraints to be addressed with the design project. That is designers will interpret the input to a design project (the requirements and other data that they receive or collect) in order to generate a first representation – which may consist of an ensemble of representations. Consequently, all the tools involved in this phase are aimed at facilitating the generation of this first representation of the design project. These tools are mainly analytical and propositional.

In the activities within the *Concept Generation* phase, the ideas start to gain shape, consequently the representations are mainly

descriptive, concrete, visual or constructed, these include sketches, concept diagrams, prototypes etc.

In the end, the tools aimed at representing design decisions, organizing, and controlling execution activities are central in the *Development and Implementation* phases.

To sum up, the tools relating to the Brief and Research and Analysis phases have mainly organizational, analytical, and propositional functions; those used in the Concept Generation, Development and Implementation phases are descriptive, visual, and organizational as well.

Further in the reflections on the conceptualisation of the tools presented in this work, it can be noted that, while in the first stages of the design process the exchange of information is balanced in terms of exchanges of materials between the design field and outside, and thus the flux of information transferred inside the interdisciplinary work; in the *concept generation and development* phases the exchange becomes more intense in the direction from the design field to the outside. It can be drowned that the interdisciplinary work mostly takes place in the first steps of the design process and involves all the actors actively, while the definitions of specifications and details of the design projects are mainly concentrated in the design field.

It is interesting to notice that the use of some tools is not exclusive to one discipline, some examples, like *user scenario* or *customer journey mapping*, have a shared usage between the different actors that work respectively on the same representation bringing their unique point of view, suggesting solutions and improvements and innovation opportunities.

Moreover, in some cases the same tool evolves through the process and serves more than one phase. This is the case of *customer journey* which in the *brief* phase involves both the designer and marketing team in the mapping of the current situation of the different possible paths and touchpoints the customers use to interact with the brand, in order to have a clear understanding of the starting point of the project and possible points of intervention. The same tool evolves from the mapping stage to become a propositional tool in the *concept generation* phase where the proposal for the new projects regarding the customer journey and the touchpoints involved is represented as

customer journey visualisation and discussed between the stakeholders with the aim of assessing the new idea and the possibilities opening new directions for the project. As this assessment takes place, it can bring to revisions and the production of new versions of the customer journey, generating some iteration in the process, which in the map presented here are represented by circular arrows connecting the project phases. The circularity among the different sub-phases is fuelled by the use of tools, for their nature of being means through which ideas are shaped, shared and discussed. Even in the *brief* phase the stakeholders discuss requirements and constraints, to come up with new shared versions of the project briefing, constructed in an interdisciplinary way by the use of tools.

Further, it is to observe how the tools mapped in the present work originate from all the different disciplines involved, marketing, management, service and user experience design and retail design in its more traditional understanding, whereas none of the tools mapped is a specific tool for the omnichannel retail experience design, this proving how the evolution of the discipline is still in its infancy, and that as it develops the need for new dedicated and on purpose tools could arise.

6.4 Discussion, Conclusions and Future Work

During the past two decades, digitalisation and the emergence of new online/mobile channels have changed retailing dramatically (Verhoef et al., 2015). The progressive dematerialisation of goods and the consolidation of the so-called service economy have mutually fuelled each other, driving the retail transformation from a predominantly product-centric to a service-centric approach (Lusch & Vargo, 2006). The proliferation of channels and consumers' demand for a seamless experience across them, is challenging retailers' business strategies (Melero et al., 2016). Being a highly transformational field, the competence domains involved into the retail system are multiple and constantly redefined their roles, hierarchies and intervention models.

In this context of transformations, the investigation from a design point of view on the new challenges of omnichannel retail raises questions about how designers are handling the increasing complexities related to the new demands of the retail landscape. As a contribution to this discourse, this work presents a conceptualisation of the design process of the omnichannel retail experience, in relationship to the tools involved in the work and the different actors participating in the process. More specifically, the analysis of the present conceptualisation has a focus on how, during the process, knowledge and information are being shared and shaped among the different actors using specific tools originating from different disciplines, creating the unique intertwining of competencies needed to bring projects to the final realisation.

From the design discipline point of view the competencies needed in the process pushes toward the building of a design team, a group of experts, each with their own specialized skills, embracing realms of user experience (UX) and service design.

The role of the tools in the entire process is not just linked to the final aim of designing a seamless experience, but to fuel the design process itself, becoming catalysts for collaborations, integrating the group work and creating and capturing knowledge in the context of collaborative design activities, sustaining the evolution of ideas, articulating knowledge in a form that can be shared between different professionals with different backgrounds; enhancing existing knowledge and creating visual translations that help stakeholders think.

Observing the flow of information and knowledge generated by the use of tools, evidences a stronger concentration of sharing project materials in the first phases (*Brief* and *Research and Analysis*) of the design process, soliciting questions about the motivations underlying this observation and how the process is going to evolve in the future. Further investigation into this inquiry could expand the knowledge on the subject and contribute to a deeper understanding of the omnichannel retail design process and its possible evolutions.

Focusing on the observation of the tools involved in the process, is clear that these have been inherited from the different disciplines involved in the omnichannel retail design process, influenced by the new requirements resulting from ongoing transformations of the retail

sector, even though none of it has been adapted in order to meet specific functions following its introduction in the retail context, with a notable absence: a dedicated toolset for crafting physical spaces within the digital sector. This gap of toolset presents a compelling avenue for future research and practical innovation. It signals the need for specialized tools tailored to the unique demands of retail design in the digital age. These tools hold big potential, promising new possibilities for research and advancement, and the chance to bridge the gap between physical and digital retail seamlessly.

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The fashion industry is entering the dynamic global competitive market, promoting various actions prioritising design, creativity, sustainability, and technological advancement as pivotal factors. At the same time, it is re-imagining its business models to adapt to the changing landscape. The rise of pervasive connectivity, intuitive interfaces and innovative interaction channels has triggered a revolution in fashion retail, reshaping customer behaviour and expectations. The traditional retail framework has evolved into a fully interconnected omnichannel system. This transformation is characterised by the proliferation of physical and virtual channels and touch points and by the adoption of a more flexible and integrated approach.

In this dynamic context, design plays a central role, possessing the ability to impart meaning to the production and distribution system. Design-led innovation represents an incremental form of innovation that injects a nuanced range of meaning into the marketplace, extending beyond tangible objects, including discourses, expressions, narratives, visual images, symbols, metaphors, and spaces.

The book analyses the multifaceted nature of the fashion retail experience through the lens of the design discipline, aiming to contextualise the evolution of retail within increasingly complex processes, networks and interconnections, both theoretically and practically. The focus is on retail design, delving into the new skills required and the valuable tools needed to apply them in inherently multidisciplinary contexts. Ultimately, the aim is to navigate the intricate terrain of retail evolution and shed light on the evolving role of design in this multifaceted sector.