Please cite the Published Version

Co-creation and co-design in pop-up stores: the intersection of marketing and design research?

ABSTRACT

Co-creation as a concept and a process has been prominent in both marketing and design research over the past ten years. Referring respectively to the active collaboration of firms with their stakeholders in value creation, or to the participation of design users in the design research process, there has arguably been little common discourse between these academic disciplines. This article seeks to redress this deficiency by connecting marketing and design research – and particularly the concepts of co-creation and co-design - together to advance theory and broaden the scope of applied research into the topic. It does this by elaborating the notion of the pop-up store as temporary place of consumer/user engagement, to build common ground for theory and experimentation in terms of allowing marketers insight in what is meaningful to consumers and in terms of facilitating co-design. The article describes two case studies, which outline how this can occur and concludes by proposing principles and an agenda for future marketing/design pop-up research.

KEYWORDS

Co-creation, co-design, pop-up retailing, user engagement, make tools

INTRODUCTION

In recent years, many industries have witnessed an 'experiential turn', whereby 'value' is defined in terms of the process(es) by which the user partakes of an organisation's market offering, as much as its inherent materiality and characteristics (Pine and Gilmore 1999; Leighton 2007; Grewal et al. 2009; Verhoef et al. 2009; Brakus et al. 2009; Gentile et al. 2007; Schmitt 2010; Lemon and Verhoef 2016). An integral aspect of this 'experiential turn' is the active participation of consumers/users. This is conceptualised in terms of *co-creation* (i.e. the variety of means by which collaboration between a firm and its stakeholders can occur – see Prahalad and Ramaswamy 2004) and *co-production* (i.e. practices wherein consumers actively become involved in the production chain of services - see Etgar 2008). This participation is facilitated by advances in technology, enabling a more 'connected' customer, with the ability and motivation to share her input into value creation processes. Such issues underpin theoretical developments in both design and marketing research. This is manifest in the development of a co-design 'school' (Sanders and Dandavate 1999; Sanders 2000; Sanders and Stappers 2008, 2014; Rizzo 2010; Mattelmäki and Visser 2011) within the broader field of user-centred design. From a marketing perspective, such developments resonate with a concept of co-creation drawing on the principles of the service-dominant (S-D) logic, a seminal development in recent marketing theory that has been influential since its promulgation in 2004 (Vargo and Lusch 2004).

An interesting artefact at the intersection of these two fields is the pop-up store (see Warnaby and Shi 2018, for a fuller discussion from an academic perspective, and Thompson 2012, for a more practitioner-oriented standpoint). Pop-up stores are strategically designed *temporary* environments aimed, among other things, at engaging consumers to co-create with brands (De Lassus and Anido Freire 2014; Kim et al. 2010). In this paper, we analyse (1) how marketers may profit from user feedback gathered through participation in pop-up store experiences; and linked to this, (2) how co-design may be facilitated through user participation and engagement in the 'pop-up' experience.

To do this, we draw upon the literatures on co-design and the S-D logic of marketing to discuss the potential of the 'pop-up' concept (specifically pop-up *retailing*) as a means of facilitating the achievement of marketing and design objectives in relation to understanding user experience. Consequently, the constructs of co-design (from the design literature) and co-creation (from the S-D logic and the wider service marketing literature) need to be brought together to then determine their influence on the management of creativity and innovation processes by means of 'pop-up store research'. The contribution of this article lies in an exploration of the principles of such an endeavour so that pop-up store research could enrich marketing through adopting a user-centric and experiential research practice, and enrich design research with relevant knowledge about the design requirements and use of temporary spaces for co-designer engagement.

LITERATURE REVIEW

We now discuss the main theoretical antecedents of co-design research and the S-D logic, before moving on to describe the characteristics of pop-up retailing, in order to contextualise the two case studies presented here, outlining the potential role of pop-up activities in informing marketing and design research.

Theoretical antecedents: Introducing co-design and the service-dominant logic

Co-design originated as the theorization of the work of some Northern European design researchers (e.g. Koskinen et al. 2003; Mattelmäki et al. 2010), who increasingly opened up the design process - earlier confined to the professional designer - to the general public, whether stakeholders or users. Since then, a user-centred design (UCD) community has developed, with a normative and 'design-led' (Sanders and Stappers 2008) approach that puts the involvement of the end user of a product, service, experience or system at the centre of research practice. Thus, UCD uses questionnaires, test labs and focus groups to empathize with the user, but does not involve her actively in the design process. In a movement inspired by the empowerment attitude of participatory design (Ehn 2008), co-design emerged as a practice within UCD, using artefacts and environments for staging encounters with users, because "it is possible to get access to the experiencer's world only through his or her participation in expressing that experience" (Sanders and Dandavate 1999: 90). Sanders and Stappers (2014: 5) thus define co-design as "designers and non-designers working together using making as a way to make sense of the future".

Key ingredients of co-design are the artefacts through which designers facilitate and trigger collaboration. These artefacts can be 'probes' (Mattelmäki 2006) to elicit reactions from users, or generative toolkits such as games (Brandt 2006) and context maps (Sleeswijk Visser et al. 2005) that can be used by co-designers to make artefacts of their own for later discussion and analysis. In addition, prototypes of products or environments can be employed to provoke focussed discussions,

confront theories and allow people to experience a situation that previously only existed in theory (Keller 2009). Through this process, non-designers can co-develop services and environments that are meaningful to them, and the use of prototypes is an important vehicle for experience, observation, reflection, interpretation, discussion and expression (Simons 2012). Thus, whereas co-creation is seen as any act of collective creativity, co-design is a form of co-creation that is conceptually tied to the whole span of a design development process: "Co-design is a practice in which co-creation is concretized" (Mattelmäki and Visser 2011: 11). According to Sanders and Stappers (2012), this co-design can occur at any point along the design development process, which is often symbolized in the so called design squiggle (see figure 1).

Insert figure 1

Sanders and Stappers (2012) extend the design process until the after-sales phase and associate the following activities with it (from left to right): *pre-design*, *discover*, *design*, *make*, *market & sell*, and *after-sales*. Here, the earlier stages of pre-design and discover will be characterised by greater fluidity and circularity consistent with a more iterative approach as ideas are tested and refined, whereas the latter stages (from design onwards) are characterised by a more explicit and overt linearity as design choices are increasingly circumscribed as the process unfolds.

This discussion regarding co-creation in a design context has resonance with aspects of the (service) marketing literature. Here, co-creation is defined in terms of companies attempting to collaborate with their customers, who they view as an important resource when developing new market offerings (Gustafsson et al. 2012). Co-creation has been a significant avenue of research in this particular marketing sub-field, and especially so in relation to the theoretical context of the S-D logic (see Vargo and Lusch 2004; Lusch and Vargo 2006). The S-D logic conceptualises a move from what its originators term a 'goods-dominant' logic, characterised by the centrality of tangible outputs and discrete firm-customer transactions, to a logic that focuses on intangibility, exchange processes and relationships. Linking back to the above design-oriented discussion, Lusch et al. (2007: 5) note that the S-D logic "is a logic that is philosophically grounded in a commitment to collaborative processes".

Eight defining characteristics of the S-D logic - termed 'foundational premises' (FPs) - were originally articulated (Vargo and Lusch 2004), and subsequently amended and expanded (Vargo and Lusch 2008). Moreover, acknowledging the centrality of some of the FPs, five 'axioms' of the S-D logic have been identified (see Vargo and Lusch 2016). These five axioms are outlined below:

> 1. *Service is the fundamental basis of exchange* (FP1) – acknowledging that people partake in exchange to acquire the benefits (e.g. knowledge and skills) accruing from specialised competences or services.

> 2. *Value is co-created by multiple actors, always including the beneficiary* (FP6) – acknowledging that value is created not just by a firm, but also by the customer. Thus, firm-customer interaction is critical in value co-creation, defined by Prahalad and Ramaswamy (2004: 8) as "the joint creation of value by the company and the customer; allowing the customer to co-construct the service experience to suit their context".

> 3. *All social and economic actors are resource integrators* (FP9) – thus, all the actors in value co-creation (including customers/users – see Arnould et al. 2006) can deploy resources, which can, in combination, contribute to this process.

4. *Value is always uniquely and phenomenologically determined by the beneficiary* (FP10) – highlighting the role of the user and/or customer as the ultimate arbiter of value.

5. *Value co-creation is coordinated through actor-generated institutions and institutional arrangements* (FP11) – which takes account of the many interactions among and between multiple actors, as well as resource implications and the impact of wider contextual factors, on the process of co-creation. In this context, 'institutions' are defined as "rules, norms, meanings, symbols, practices and similar aids to collaboration", and 'institutional arrangements' as "interdependent assemblages of institutions" (Vargo and Lusch 2016: 6), discussed further in the recent literature on service ecosystems (see Akaka and Vargo 2015; Chandler and Vargo 2011; Vargo and Akaka 2012).

The central position the S-D logic grants to co-creation between firms and users, and the specific resources of users and actor-generated institutions to facilitate co-creation, resonates with recent research in the co-design field. However, the S-D logic arguably approaches reality from a macro- or systems level, making it quite abstract and difficult to dissect co-creation practices (and research into these practices). In contrast, co-design research starts, in an inductive way, from design practices and theorizes mostly on the meso-, or relational level. Thus, a juxtaposition of S-D logic and co-design research can potentially enrich both fields.

Synthesising Co-design and the Service-Dominant logic?

As intimated above, there is arguably much resonance between co-design and the S-D logic. Co-design would not necessarily be subsumed in axiom 1 of the S-D logic, as design researchers associate users more as members of a 'convivial' culture than of a commercial/consumer one (Sanders and Stappers 2012). However, all other axioms are clearly echoed in co-design research. Design value is co-created among people with different resources, and the beneficiary of the product/service ultimately determines its value. The most striking potential overlap of S-D logic and co-design thinking and practice, however, relates to axiom 5 (i.e. co-creation happens in 'assemblages of institutions'). From a co-design perspective, institutional arrangements, or ecosystems, are not the only sites of co-creation. Designed spatio-temporal interventions - such as pop-up stores - are particularly suited to facilitate co-creation, and the pop-up environment can be viewed as an assemblage, which stages and enables co-creation, and even engages users in co-design (Teal and French 2016; French et al. 2016).

A further issue is that users who are currently motivated to co-design are mostly highly involved and knowledgeable, and consequently, may differ significantly from the majority of consumers (Hoyer et al. 2010). This problem might, however, be addressed by using pop-up stores to gather user feedback. Diverse consumer groups who do not have the motivation or mind-set (as yet) to engage in more focussed co-design activities, could nevertheless be engaged through pop-up activities. In order to attract broader and more diverse groups of users and stakeholders into co-designing products, services or experiences at different stages of the design development process, entire pop-up store concepts - or at the least, certain pop-up principles - could be utilized.

We argue, therefore, that retail pop-up stores be regarded as examples of assemblages or spaces for co-design. Pop-up stores are temporary - and often highly experiential - spaces that have been used predominantly by brands for marketing goals. The willingness of consumers to collaborate is increasing as they seek "consumptive/creative balance" (Sanders and Stappers 2012: 16), and opportunities to mix passive consumption with the ability to engage in creative experiences. Pop-up

environments can thus be conceptualized as assemblages/spaces that facilitate consumers' engagement with a (future) product or service offering in order to ascertain the nature of, and subsequently co-create, value. We term this 'pop-up store research'. This integrates the role of the designer more firmly into the marketing perspective, as implied by Sanders and Stappers (2012: 25) in the following quote: "Designers in the future will make the tools for non-designers to use to express themselves creatively." The potential for using pop-up in this way is also highlighted by Maxwell et al:

> "Pop-up environments are by definition limited in time, and therefore require close monitoring and responsive facilitation to ensure the most effective use of resources, however these intensive, condensed environments or specific events within larger pop-ups can be directly instigated by researchers, providing the opportunity to embed data gathering and a focus on thematic topics of interest into the space from the outset" (2013: 201).

Before exploring this notion of 'pop-up store research' in the context of two case studies, we briefly define and characterise pop-up retailing with particular reference to co-design.

Pop-up Retailing

In recent years, the 'pop-up' epithet has virtually become a synonym for any temporary event in a wide range of commercial and non-commercial contexts. Most notable of these commercial contexts is pop-up *retailing* - defined by Warnaby and Shi (2018: 1) in terms of "an ephemeral retail-oriented setting which can facilitate direct, experientially-oriented customer-brand interaction for a limited period". Pop-up has become an ever more popular promotional and sales-generating activity for retailers, who perforce have to be more agile and flexible in their operations (Warnaby and Shi 2019). In a non-commercial context, the pop-up concept has been regarded as a manifestation of temporary urbanism (see for example, Bishop and Williams 2012; Ferreri 2015, 2016; Harris 2015), incorporating such activities as the temporary creative re-use of vacant urban space (see for example, Colomb 2012; Ziehl and Oßwald 2015), in ways that are frequently regarded as pioneering and experiential (Ferreri 2015).

According to Warnaby et al. (2015), pop-up retailing could contribute to achieving a range of business objectives. These objectives include: (1) *Communicational* (i.e. to increase positive brand values perception); (2) *Experiential* (i.e. to facilitate the development of consumer-brand engagement); (3) *Transactional* (i.e. to increase sales in markets characterised by an intrinsic periodicity); and (4) *Testing* goals (i.e. to gain market, marketing and design intelligence). It is this last objective that we primarily focus on here. Warnaby et al. (2015) refer to a 'market tester' pop-up where in-store pop-up environments facilitate the collection of customer feedback through interaction, and experiential elements of store design. From a co-design perspective, pop-up retailing with testing goals - representing an integrated experience around a new concept, product or service (see also Overdiek 2018 for an example) - could be categorized as an experience prototype, defined as "any kind of representation, in any medium, that is designed to understand, explore or communicate what it might be like to engage with a product, space or system we are designing" (Buchenau and Suti, 2000: 425).

In a pop-up store, users and stakeholders shape this prototype using their bodies and senses. They can actively participate and give feedback in this process of pop-up store research, whereby pop-up stores are research environments where firms can actively seek to investigate needs of consumers. "Enacting" (Sanders and Stappers 2012: 50) products or services in the designed environment of a

physical pop-up store could help people experience the complexities of future products and services. This in turn would facilitate the capacity for co-design to occur. This approach has a number of advantages over the purely digital interaction of, for example, virtual reality (VR) simulation (Martinez et al. 2016). By this kind of user experience approach, digital tools, logical thought and verbal expression are activated, but what is supported much less effectively is people's skills in spatial reasoning, associative thought, overview, empathic thinking, informal discussions and serendipity (Stappers, 2006). The physical pop-up store conceptualized as experience prototype could successfully support these latter skills.

Pop-up store research could address the above by allowing the immersion of users in an integrated experience, which is connected to a temporary physical space, but can also contain digital interaction, VR and augmented reality (AR). According to Martinez et al. (2016), immersion - an absorption of the user's senses that calls for her holistic attention - is a technique to blur the role between designer and user. In pop-up store research, immersion and opportunities to co-design are linked. The strength of the pop-up store lies in *engagement*. Pop-up stores can engage (i.e. attract, immerse and motivate to co-design) ordinary users and otherwise difficult to reach communities. They do this by 'popping up' as spatiotemporal, 'in-between' (interstitial) spaces in everyday shopping/urban environments. Moreover, the near-future orientation of pop-up stores, combined with the effect of scarcity and ephemerality to impel action, engages curious user groups such as "emergent consumers" and "market mavens", who bring valuable feedback to design (Hoyer et al. 2010: 288). The rest of the paper describes two case studies that exemplify the use of pop-up stores for allowing marketing insight and for facilitating co-design with otherwise difficult to reach user groups. Important design requirements of such spaces will be unpacked by the two case studies, which epitomise the notion of 'pop-up store research'.

METHODOLOGICAL CONSIDERATIONS

Research Design

This study champions a performative ontology, where collaborative practices are created and recreated daily within distinctive spatial contexts. This ontology has been developed primarily in the fields of human geography (Lorimer 2005), organisational communication (Brummans et. al 2004; Overdiek 2017) and ethnomethodology (Laurier 2003) and resonates with studying the practice of co-creation in physical space. In the cases outlined below, researchers, students and pop-up experience users are human actors interacting with the pop-up itself as a "nonhuman actor" (Latour 1994) to unfold a presence. From this grounded-in-action perspective, reality is the outcome of a joint mediation between the "built-in properties" (Fairhurst and Putnam 2004: 18) of objects, and the objectives of human subjects. This ontology implies a methodology which studies an activity as it unfolds and as it is repeated in different iterations over time. This is very close to 'constructive design research', referring to research whereby 'construction' - be it of product, system, space or media - takes centre-stage and becomes the key means of knowledge production (Koskinen et al. 2011).

Linking back to the research objectives articulated in the introduction, this paper raises both methodological and managerial issues. On a methodological level, we seek to analyse how co-design may be facilitated through user participation and engagement in the 'pop-up' experience. On a managerial level, we want to identify how marketers may profit from user feedback gathered through participation in pop-up store experience. Consequently, we used an overarching iterative design approach whereby a sequence of pop-up stores was designed in response to different

research questions of managers/marketers. Design requirements were drawn from the pop-up retailing and co-design literatures and were refined through iterative cycles of design, prototyping, testing and analysis in order to distil the general principles or design requirements for 'pop-up store research' (see also Overdiek 2018).

In order to address the managerial issues, we developed a research design to address marketers' information requirements by soliciting user feedback from each of the pop-up activities. Qualitative ethnographic observation (see Reeves, Kuper and Hodges 2008) of visitor/user behaviour, 'probes' (Mattelmäki 2006), and questionnaires were used in each pop-up activity. These methods are well suited for transdisciplinary research (Muratovski 2016), and the specific mix of these methods for the two cases reported below is listed in table 1. For all completed questionnaires, quantitative questions were analysed via normal descriptive statistical analysis, and responses to open-ended/sentence completion questions, along with data generated from 'probes' and ethnographic observation (recorded in field notes), were subject to thematic analysis (Crang, 2005). This enabled data triangulation (Denzin, 1978) to occur, facilitating the identification of emerging patterns in the data (Decrop, 1999). These will be described in the two case studies below.

Insert table 1

Choice of Case Studies

Co-design is a form of co-creation that can be applied across the whole span of the design development process (outlined in figure 1 above). Space constraints preclude detailed examination of each stage, so in this paper we focus our attention on two key stages. Co-design authors suggest that the approach is particularly effective in the so-called "fuzzy" front-end phase (Sanders and Stappers 2012). That is, when a designer/marketer does not yet know which product, service or experience could satisfy a user's needs. Thus, IN BLOOM was chosen as our first case study, because it situates the co-design activity at the front end of the design development process. To-Kiss-Or-Not-To-Kiss was chosen as the second case study because the focus of co-design activity was more at the 'back-end' of the design development process where most 'market & sell' research occurs. The first case study describes the very first pop-up activity executed in the pop-up research sequence , and the second case study is an iteration of the principles identified in the IN BLOOM case and in a second case not reported here (see Overdiek 2018 for all cases).

The following case study examples illustrate both methodological and managerial learnings arising from 'pop-up store research'. In the cases, we will first report the context of each pop-up and the findings for the more overtly managerial questions above. In the following Discussion section, we consider the implications for the design requirements for "pop-up store research" and formulate initial principles.

IN BLOOM

In early 2016, the marketing department of a Dutch grower's cooperative approached the research group with the goal of discovering the flower preferences of millennials, particularly why young people were reluctant to buy flowers and plants, and when they did, what their product preferences were. The researcher suggested the use of a pop-up approach, as it was thought that such an experience prototype would be a good way to investigate these issues through adopting co-design principles.

For this experience prototype - a pop-up store themed around flowers and plants - Industrial Design Engineering students conceived a stand-alone pop-up store to be placed in the central hall of the University. This location was chosen for its high footfall potential (especially for millennials). International Communication Management students developed the name 'IN BLOOM' and a communication strategy, and a Small Business student coordinated the process. The growers provided flowers and plants, but were confined to the role of sponsor, thereby minimising their influence on the conception of the pop-up store. This design decision was taken on the grounds of co-design literature. The marketing partners from the grower firms wanted to extract information for purely monetary goals (i.e. "Which colours of flowers do we need to sell to millennials?"), whereas the pop-up research embarked in co-design to achieve objectives relating to broader societal (e.g. "What are the needs of millennials when it comes to the presence of flowers and plants in their lives?") and experiential (e.g. "Can a pop-up facilitate co-design?") issues. The grower partners were curious enough to grant this experiment in order to try and answer some of these broader questions. They were also persuaded to refrain from introducing visual branding in the pop-up store, accepting the argument – again derived from co-design literature – that overly visual branding would distract users from the co-design activity. Consequently, visitors entered the space without knowing exactly what it was, in order to keep the experience ambiguous. This, in theory, should foster their creativity (see Sanders and Stappers 2012: 44 on the positive influence of ambiguity).

The Communication students created a story around the 'IN BLOOM' pop-up store, which was communicated through the logo (figure 2), released two weeks before the opening. This communication strategy was intended to 'prime' future visitors for the experience, and indeed, the word 'experience' was mentioned in the logo. The design students came up with a construction of two domes connected by a tunnel, crafted using plastic tubes and a foil cover. They also designed an interactive tree (which emitted sound when touched) as the centrepiece of the pop-up store. Furthermore, there were visual, auditory and olfactory presentations of flowers, including a lounge space. Finally, they created work-stations where users could paint, eat or name flowers. (figure 3)

Insert figure 2

Insert figure 3

The pop-up was scheduled to be open for five days. One day after the opening, the University's internal magazine published the following description:

> *"When you walk into the aluminium igloos on a green carpet, you enter another world. Fresh flowers colour the walls, the smell does take you to a beautiful spring day in nature and the music moves you further: to a distant place with trickling water and chirping birds. And that's all while you're just in the main atrium".*

During the five days of 'IN BLOOM', more than 2,000 students, staff and neighbourhood residents visited. Judging from the questionnaires, it was the perceived oddness of the pop-up in this place, as much as the flower theme, that drew their attention. The in-between-ness of the pop-up store not only attracted them visually, it also triggered their curiosity, which made them take the time to visit the space. Their question "What is this?" was not answered conclusively by the facilitators on site, to

allow for ambiguity. They were just told that it was a research project and that they were free to touch and explore.

Activities to assess the effectiveness of the pop-up store consisted of a questionnaire at the entrance and again at the exit. The first, entrance questionnaire inquired about expectations and attitudes and behaviours around the use of flowers and plants. The second, exit questionnaire included questions about the pop-up experience, ideas for future use of flowers, and future planned behaviour. A total of 173 valid questionnaires were completed at the entrance, and 135 were completed at the exit. A further 36 valid questionnaires were received via e-mail, up to three weeks after the pop-up experience. The closed and open questions of the questionnaire focused on the visitors' perception, imagination and chosen interactive activities. To foster creativity (Sanders and Stappers 2012), an open-ended sentence completion question was included. Additionally, the lead author of this paper spent at least an hour every day at the pop-up, observing, experiencing, talking to visitors and recording data as field notes.

Fifty percent of questionnaire respondents directly after the pop-up experience revealed that it had made them aware of the added-value flowers and plants could have for their working environment and/or homes. Even three weeks after the pop-up experience, thirty percent of users still looked differently at flowers and plants. In personal conversations, many stated that they would want to have more flowers and plants in their lives, if only they had the space and time to care for them.

On the day following the opening of 'IN BLOOM', some people came back to have lunch, meet or work in the pop-up store. They all stressed the opportunity the space provided to "decompress". Many pointed out that it was the full sensory experience that drew them to the space, particularly the scent. Photos and stories were shared by users on Facebook and Instagram. During the third and fourth days of the pop-up store, user comments aligned on the space as a "restorative flower oasis". For the firm sponsors these results were revealing. They realized that millennials strongly connected to their plants, but could not interact with the kind of products presently on offer in stores. It encouraged them to start thinking in a completely different way about offering the experience of flowers and plants to this user group in the future.

Regarding the questionnaire, some users remarked that it was too long and disturbed their experience of the pop-up. Many also declined to fill it in. On the positive side, the sentence completion question generated a lot of insights for the growers. Two typical expressions were:

"Plants make me think of happiness, beauty and bring a connection with nature indoors."

"I forget to water them all the time and they die."

These findings encouraged the growers to develop self-watering and easily movable plant solutions and plants as a service offerings for the millennial customer group. In terms of co-design, users developed and shared ideas in different ways. They participated in a 'name the flower' contest and in flower tastings and communicated experiences and ideas with the two facilitators in the store. Users were thus actively co-designing a future product/experience that was meaningful to them together with the flower and plant industry.

TO-KISS-OR-NOT-TO-KISS (TKONTK)

In 2017, the research group was represented at the prestigious Dutch Design Week (DDW) in Eindhoven with a research pop-up store. For this, it collaborated with a lecturer from the Industrial Design Engineering programme who had developed the concept of a Dutch multicultural souvenir.

Together with a group of students, she had redesigned two typical Dutch souvenirs: figurines of the kissing couple, and the stroopwafel (Dutch waffle cookie). Additionally, these redesigns incorporated multi-cultural aspects that reflected the emerging composition of the Dutch population. Ten ceramic prototypes of the kissing couple had been produced with some of the figures depicting different ethnicities, and the stroopwafel had been enhanced with three flavours based on spices from cultures that had most influenced the country. At this point, the makers of the products wanted to test them with consumers and find out which marketing 'story' would engage them. They were also curious about indications of specific characteristics of future customers. In a pop-up store themed around these products (figure 4), co-design in a later phase of the design development process (Sanders and Stappers 2012) could be researched, to inform the 'market & sell' phase – more associated with managerially-focused research.

Insert figure 4

Again, Design Engineering and Communications students participated in the project, designing and building a pop-up market booth, accessible from three sides. One side had a display showing the different kissing couple figurines, which could also be held and touched. Another side was where the cookie product could be scented and tasted, and the third side was a 'step in' selfie booth in Delft Blue style. The selfie booth had wall tile designs from six different cultures and played Arabic music inside. The pop-up store was provocatively called 'To-Kiss-Or-Not-To-Kiss', as kissing in public itself is an expression which is not supported by all cultures in the Netherlands. The pop-up store remained open for ten days during Dutch Design Week.

For the evaluation of the activity, mixed methods were again used. To make the questionnaire short, questions based on the experience model of Varshneya et al. (2017) were incorporated. This model shows a positive correlation between word-of-mouth and experiential value. This allowed researchers to make the perceived experiential value of the pop-up store measurable with just one question, and allowed the questionnaire to comprise only three questions, along with respondent demographics. The questionnaire was completed by visitors when leaving the pop-up. Responses from 130 visitors were obtained, and around 500 users left visual and written feedback using make tools like a poster they could draw on and postcards they could fill in. Furthermore, the lead author spent three entire days at the pop-up store to conduct participatory observation, recording data via field notes.

Evaluative research indicated that ninety percent of questionnaire respondents would recommend visiting the TKONTK pop-up store to colleagues and friends. This vouches for the high experiential value of the pop-up store. Like the 'IN BLOOM' pop-up, TKONTK also attracted more women than men: sixty-seven percent of the co-designing users were female. Interestingly, TKONTK also engaged more older people: thirty-five percent of visitors were over forty years old. These findings were surprising as there was no significant relationship between DDW visitors, gender and age. The fact that TKONTK competed as an experience with many technology designs and itself did not include a mixed or virtual reality element, might be one reason for not attracting younger, more tech-savvy consumers. The maker/marketer of the figurines took another insight from this: namely, that the typical consumer of this multicultural souvenir product might be older than forty years.

In terms of co-design, there were several probes, such as maps where visitors could mark their family's travel to the Netherlands, as shown in figure 5. Fifty percent of the visitors indicated that they would buy the figurines and the cookies because they "tell a story" which they found very

relevant. They also shared in conversations that they felt that they could contribute to this story by their drawings on the map. In terms of giving meaning to the overall experience, users and stakeholders (embassies, producers, retailers) left much feedback that provided insight into the meaningful experience connected to this multicultural souvenir product. Some examples included:

"The experience is playful, like the souvenir";

"I like the fusion of cultures in what I see and hear in the pop-up";

"It surprised me: At first sight it looks traditional, but it is innovative and beautiful design";

"I love that it is about love";

"Tasting and touching made it a very valuable experience."

Insert figure 5

The pop-up thus generated many insights for the marketing and selling of the figurines. However, in terms of co-design of the products, less input could be collected. Overall, visitors perceived the actual souvenir design as finished. Whilst visitors could write on postcards how they would like to adapt the figurines to their taste and need, only thirteen percent of the visitors suggested design adaptations to the figurines. These design adaptations fell in three categories: skin colour (i.e. allow for darker colours), finish (i.e. frosted instead of glazed) and customization options (e.g. kit to make your own figurine, figurines should adjust to mood). The limited time people spent in a pop-up store (five minutes was the average time of visitation, according to the researcher's field notes) might be a reason for this. Observational data intimated that co-design was also hindered because the available space in the fair was smaller than promised and visitors could not lounge or linger, as had been the case with the 'IN BLOOM' pop-up store.

DISCUSSION

The case studies briefly outlined above demonstrate the potential of 'pop-up store research' from both co-design and co-creation perspectives. In terms of co-design, using a pop-up modus operandi facilitated the generation of new product and service ideas based on perceived and expressed user needs, as well as ways in which the design prototypes presented could be improved. From a marketing perspective, both pop-ups were developed in response to commercial needs of client organisations, and their experientially-oriented, co-creative aspects enabled a greater degree of engagement, which led to an improved understanding of how value was perceived by users.

The choice of cases was, in large part, determined by the stage of the design development process at which they fell. The 'IN BLOOM' pop-up store exemplifies how a highly experiential pop-up environment can be successfully used as a platform for *co-design* in the early, so called 'fuzzy front-end', phase of the design process. Here, it was deemed important to create a multi-sensory user experience, providing activities to support people's need for creative expression in terms of 'making', as well as providing a space that facilitated users' opportunities to reflect, relax and meet each other. An important lesson learned at this stage was to allow for a certain degree of 'ambiguity' in the space in order to allow users' creativity to be maximised, and part of this related to keeping the visual presence of any sponsoring organisation minimal so as not to impose perceptual constraints on users as a consequence of knowing who might be sponsoring the activity.

Acknowledging – and developing - the lessons learned from the IN BLOOM case (as part of the iterative approach suggested by the methodology adopted), the latter case - 'To-Kiss-Or-Not-To-Kiss' - suggests that co-design might be more difficult to achieve in later phases of the design process. Here, the products in question (i.e. the figurines and the stroopwafel) were perceived as 'finished' by users of the pop-up store. Using the pop-up space to communicate the fact that there was still freedom to experientially engage with - and make new interpretations of - the product is potentially important in order to trigger consumers' creativity further, particularly in later stages of the design process (see Overdiek 2018) to thereby incrementally improve design outcomes. This would help minimise the perception that the product is 'finished', and thereby facilitate further co-design activity. In addition, a better scaffolding of the 'make' tools adapted to the relatively short visiting time of consumers in pop-up-stores is necessary. Make tools thus should be targeted to the specific options designs can be adapted or re-designed in this later stage in the design development process. Also very clear 'calls to action' need to accompany the make activities and 'seed participants' (i.e. facilitators that demonstrate activities - see Findeiss et al. 2015) could have a more prominent role.

From both cases, we were also able to extract some initial principles of pop-up store research. We ordered these from requirements for the space design to requirements for activities in the space. A themed pop-up store that facilitates co-design should have the following principles:

1. Create a multi-sensual experience for the user
2. Keep the visual presence of a brand minimal
3. Allow for a certain degree of ambiguity as to the goal of the pop-up space
4. Provide a lounge space inside the pop-up where users can reflect, relax and meet each other
5. Provide activities to support people's need for creative expression on the making level
6. Provide scaffolding (and possibly 'seed participants') with design tools to allow making/feedback by users in a limited timeframe

Indeed, using pop-up for concept or market 'testing' purposes has been highlighted as a potentially important motivation for the pop-up activity (Warnaby et al. 2015). In the cases outlined above, to maximise the managerial utility of 'pop-up store research' in achieving 'testing' objectives, it seems that using short and simple questionnaires, with open questions and fill-in sentences, generates effective feedback. Furthermore, encouraging reflective practice by staff in the pop-up store (analogous to the field notes recorded on each case by the first author) helps in the processes of co-design and co-production. In this way, we suggest pop-up activities could be regarded as both a marketing research tool and an experience prototype. This, in turn, could enable both the marketing (especially when adopting an S-D logic perspective) and the co-design fields to profit from the blending of perspectives.

CONCLUSION AND FUTURE RESEARCH AGENDA

In this paper, we have attempted to show how pop-up store research can enrich marketing through adopting a user-centric and experiential research practice, and how it can enrich design research with relevant knowledge about the design and use of temporary spaces for co-designer engagement. Of course, the initial principles outlined above need to be elaborated further, to assess their applicability across different contexts. This will always need to take into account the phase in the design development process in which the research takes place. Other issues which could impact on the possibilities for co-design could include: the possible impact of different cultural contexts and/or gender of participants and the potential for the use of technology such as AR or VR. Further, from a

managerial perspective, as pop-up research requires a lot of resources compared to other kinds or user research, so consideration needs to occur as to the cases and the kinds of offerings for which this approach is particularly suitable.

Some ethical questions are also relevant for discussion between the two academic fields of design and marketing. There are normative differences between co-designing for societal value on the one hand, and experience co-creating (marketing) for 'mere' monetary value, on the other. Some questions here are: Can we define all users as 'consumers'? What are the limitations of such an equation? How equal is the exchange of creative resources between brands and consumers? Do visitors of a testing pop-up store (need to) know that they are participating in a co-design activity? Creating together with firms, should the co-creation goal be openly communicated, and if so, how? Some preliminary ideas about these issues have already been implemented in this research. Branding as visual presence of the firm was minimized in the cases to give every actor in this co-creation the same means. If branding is allowed to take centre stage in a research pop-up store, firms could be perceived as exploitative and creativity of users could be stifled.

An open discussion about these issues could pave the way to a variety of additional issues and questions, which could provide the basis of a future common research agenda. These issues include, for example: From an S-D logic perspective, identifying the nature of the operant resources that consumers bring to bear in the co-creation of value in this context; and indeed, how is 'value' defined in this context, and which consumer types are more receptive to this approach? Another avenue for further research is identifying business issues for which this 'pop-up research' approach is particularly appropriate as a methodology for informing solutions. Sustainability as a research field, and particularly the testing of circularly produced consumer products and services geared to bring about more sustainable societies seems to offer a rich area for the application of pop-up store research.

From a co-design perspective questions for future research can include: to what extent can the role of resource integration (by both consumer and marketer) in creating these flexible spatiotemporal contexts be conceptualised in terms of assemblage theory? More specifically, are there any particular 'generative toolkits' (Sanders and Stappers 2012) that are especially effective for engaging users in co-design in pop-up stores? For this question, it would also be interesting to look deeper into the literature of embodied interaction and the opportunities pop-up stores as physical experience prototypes have to offer. Much pop-up store research in collaboration with marketers and designers across different phases of the design development process is necessary to answer these questions.

References

Aguirre, M., Agudelo, N. & Romm, J. (2017). Design facilitation as emerging practice: Analyzing how designers support multi-stakeholder co-creation. *She Ji: The Journal of Design, Economics and Innovation*, 3(3), 198-209.

Akaka, M.A. & Vargo S.L. (2015). Extending the Context of Service: from Encounters to Ecosystems, *Journal of Services Marketing*, 29(6/7), 453-462.

Arnould, E. J., Price, L.L. & Malshe, A. (2006). Toward a cultural resource-based theory of the customer. In Lusch, R.F. & Vargo, S.L. (eds.), *The Service-Dominant Logic of Marketing: Dialog, Debate and Directions*, 320-333. Armonk, NY: M. E. Sharpe.

Benz, P. (ed.) (2014). *Experience Design. Concepts and Case studies*. London: Bloomsbury Academic.

Bishop, P. & Williams, L. (2012). *The Temporary City*. London & New York: Routledge.

Bolton, R. N., McColl-Kennedy, J. R., Cheung, L., Gallan, A., Orsingher, C., Witell, L. & Zaki, M. (2018). Customer experience challenges: bringing together digital, physical and social realms. *Journal of Service Management*, *29*(5), 776-808.

Brakus, J. J., Schmitt, B. H. & Zarantonello, L. (2009). Brand experience: what is it? How is it measured? Does it affect loyalty?, *Journal of Marketing* 73(3), 52-68.

Brandt, E. (2006). Designing Exploratory Design Games: A Framework for Participation in Participatory Design? *Proceedings of PDC 2006*, Vol. 1, 57–66. Trento, Italy.

Brummans, B. H. J. M., Cooren, F., Robichaud, D., & Taylor, J. R. (2014). Approaches to the communicative constitution of organizations. *The SAGE handbook of organizational communication: Advances in theory, research, and methods*, 173-194.

Buchenau, M. & Suri, J. F. (2000). Experience prototyping. *Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and technique*, ACM, 424-433.

Chandler, J. D. & Vargo, S. L. (2011). Contextualization and value-in-context: How context frames exchange. *Marketing Theory*, 11(1), 35-49.

Colomb, C. (2012). Pushing the urban frontier: Temporary uses of spaces, city marketing, and the creative city discourse in 2000s Berlin. *Journal of Urban Affairs*, 34(2), 131-152.

Crang, M. (2005). Analyzing qualitative materials. In Flowerdew, R. & Martin, M. (eds.), *Methods in Human Geography: A Guide for Students Doing a Research Project*, , 218-232. Upper Saddle River, NJ: Prentice Hall.

De Lassus C. & Anido Freire N. (2014). Access to the luxury brand myth in pop-up stores: A netnographic and semiotic analysis. *Journal of Retailing and Consumer Services*, 21, 61-68.

Denzin, N. K. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: McGraw Hill.

Dewcrop, A. (1999). Triangulation in qualitative tourism research. *Tourism Management*, 20(1), 157-161.

Ehn, P. (2008). Participation in Design Things. *Proceedings of Participatory Design Conference*, Indiana University, U.S., 92-101.

Etgar, M. (2008). A descriptive model of the consumer co-production process. *Journal of the Academy of Marketing Science*, 36(1), 97-108.

Fairhurst, G.T. & Putnam, L. (2004). Organizations as discursive constructions. *Communication Theory*, 14(1), 5-26.

Ferreri, M. (2015). The seductions of temporary urbanism. *Ephemera: Theory & Politics in Organization* 15(1), 181-191.

Ferreri, M. (2016). Pop-up stores as an interruption in (post-)recessional London. In Shirley, J. & Lindner, C. (eds.), *Cities Interrupted: Visual Culture and Urban Space.* London: Bloomsbury Academic.

Findeiss, A., Labay, E. & Tierney, K. (2015). CurioUs: the logic of performance. In Benz, P. (ed.), *Experience Design. Concepts and Case studies*, 113-123. London: Bloomsbury Academic.

French, T., Teal, G. & Raman, S. (2016). Experience Labs: co-creating health and care innovations using design tools and artefacts. *DRS 2016 Conference Proceedings*, 2965-2979. London, UK: Design Research Society.

Gentile, C., Spiller, N. & Noci, G. (2007). How to Sustain the Customer Experience: An Overview of Experience Components that Co-create Value with the Customer, *European Management Journal* 25(5), 395–410.

Gilmore, J. H. & Pine, B. I. (2002). Customer experience places: the new offering frontier, *Strategy and Leadership* 30(4), 4–11.

Grewal, D., Levy, M. & Kumar, V. (2009). Customer experience management in Retailing: An organizing framework, *Journal of Retailing* 85(1), 1–14.

Gustafsson, A. Kristensson, P., and Witell, L. (2012) Customer co-creation in service innovation: a matter of communication? *Journal of Service Management* 23(3),311-327.

Harris, E. (2015). Navigating popup geographies: Urban space-times of flexibility, interstitiality and immersion. *Geography Compass* 9(11), 592-603.

Holmlid, S., Mattelmäki, T., Visser, F. S. & Vaajakallio, K. (2015). Co-creative practices in service innovation. *The Handbook of Service Innovation,* 545-574. London: Springer.

Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M. & Singh, S. S. (2010). Consumer co-creation in new product development. *Journal of Service Research*, 13(3), 283-296.

Keller, I., Visser, F. S., van der Lugt, R. & Stappers, P. J. (2009). Collecting with Cabinet: or how designers organise visual material, researched through an experiential prototype. *Design Studies*, 30(1), 69-86.

Kim H., Fiore, A. M., Niehm, L. S. & Jeong M (2010) Psychographic characteristics affecting behavioural intentions towards pop-up retail. *International Journal of Retail & Distribution Management* 38(2), 133-154.

Koskinen, I., Battarbee, K &, Mattelmäki, T. (eds.) (2003). *Empathic design*. Helsinki: IT Press.

Koskinen, I., Zimmerman, J., Binder, T., Redstrom, J. & Wensveen, S. (2011). *Design research through practice: From the lab, field, and showroom.* Amsterdam, The Netherlands: Elsevier.

Latour, B. (1994). On technical mediation. *Common Knowledge,* 3(2), 29-64.

Laurier, E. (2003). Technology and mobility. *Environment and Planning A*. 35, 1521-1527.

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69-96.

Leighton, D. (2007). Step back in time and live the leg-end: experience marketing and the heritage sector, *International Journal of Nonprofit and Voluntary Sector Marketing* 12(2), 117–125.

Lorimer, H. (2005). Cultural Geography: The Busyness of Being 'More-Than-Representational', *Progress in Human Geography*, 29(1), 83–94.

Lusch, R. F. & Vargo, S. L. (2006). *The Service-Dominant Logic of Marketing: Dialog, Debate and Directions.* Armonk NY and London: M. E. Sharpe.

Lusch, R. F., Vargo, S.L. & O'Brien, M. (2007) Competing through service: Insights from the service-dominant logic. *Journal of Retailing* 81(3), 5-18.

Martinez, S., Isaacs, J., Fernandez-Gutierrez, F., Gilmour, D. & Scott-Brown, K. (2016). Building Bridges Between User and Designer: Co-creation, Immersion and Perspective Taking. *Advances in Design for Inclusion,* 117-129. Basel, Switzerland: Springer International Publishing.

Mattelmäki,T. (2006). *Design Probes*. Doctoral Thesis. University of Art and Design Helsinki, Finland.

Mattelmäki, T., Brandt, E. & Vaajakallio, K. (2010). Who are you? Designing interpretations for new interpretations. *Proceedings of design and emotion*. Chicago, 5-7 October.

Mattelmäki, T., Brandt, E. & Vaajakallio, K. (2011). On designing open-ended interpretations for collaborative design exploration. *Co-design*, 7(2), 79-93.

Mattelmäki, T. & Visser, F. S. (2011). Lost in co-x. Interpretations of co-design and co-creation. *Proceedings of the IASDR2011, 4th World conference of Design research*.

Maxwell, D., Woods, M. & Prior, S. (2013). The pop-up ethnographer: Roles of the researcher in temporary spaces. *EPIC Proceedings*, 200–215, American Anthropological Association.

Muratovski, G. (2016). *Research for designers: A guide to methods and practice*. London: Sage

Overdiek, A. (2017). Fashionable Interventions: The Pop-up Store as Differential Space, *Organizational Aesthetics*, 6(1), 116-134.

Overdiek, A. (2018), Exploring the pop-up shop for co-design research, *DRS 2018 Conference Proceedings*, Vol.5, 2209 – 2221. London, UK: Design Research Society.

Pine, B. J. & Gilmore, J. H. (1999). *The experience economy: work is theatre & every business a stage*. New York: Harvard Business Press.

Prahalad, C. K. & Ramaswamy, V. (2004). Co-creation Experiences: The Next Practice in Value Creation, *Journal of Interactive Marketing*, 11(3), 5-14.

Reeves, S., Kuper, A. & Hodges, B.D. (2008). Qualitative Research Methodologies: Ethnography. *British Medical Journal*, 337(7668), 512-514.

Rizzo, F. (2010). Co-design versus User Centred Design: Framing the differences. In Guerrini, L. (ed.), *Notes on Design Doctoral Research*. Milan: Franco Angeli Editore.

Sanders, E. B.-N. (2000). Generative tools for co-designing. In Scrivener, Ball and Woodcock (eds.) *Collaborative Design*. London: Springer.

Sanders, E.B.-N. & Dandavate, U. (1999). Design for experiencing: New tools. *Proceedings of the First International Conference on Design and Emotion*, Delft, The Netherlands, 87-92.

Sanders, E.B.N. & Stappers, P.J. (2008). Co-creation and the new landscapes of design. *Co-design: International Journal of CoCreation in Design and the Arts*, 4(1), 5-18.

Sanders, E. B. N. & Stappers, P. J. (2012). *Convivial toolbox: Generative research for the front end of design.* Amsterdam: BIS.

Sanders, E.B.N. & Stappers, P.J. (2014). Probes, toolkits and prototypes: three approaches to making in co-designing. *Co-design: International Journal of CoCreation in Design and the Arts*, 10(1), 5-14.

Schmitt, B. (2010). Experience Marketing: Concepts, Frameworks and Consumer Insights, *Foundations and Trends in Marketing,* 5(2), 55–112.

Simons, G. Jr. (2012). The changing role of prototypes. In Sanders, E. B. N. & Stappers, P. J. (eds.). *Convivial toolbox: Generative research for the front end of design*. 62-63. Amsterdam: BIS.

Sleeswijk Visser, F., Stappers, P.J., van der Lugt, R. & Sanders, E.B.-N. (2005). Contextmapping: Experiences from practice. *Co-design: International Journal of CoCreation in Design and Arts*, 1(2), 119–149.

Stappers, P. J. (2006). Creative connections: user, designer, context, and tools. *Personal and Ubiquitous Computing*, 10 (2-3), 95-100.

Stickdorn, M., Schneider, J., Andrews, K., & Lawrence, A. (2011). *This is Service Design Thinking: Basics, Tools, Cases,* Vol. 1. Hoboken, NJ: Wiley.

Teal, G., & French, T. (2016). Designed Engagement. *DRS 2016 Conference Proceedings,* 3653-3668. London, UK: Design Research Society.

Thompson, D. (2012) *Pop Up Business for Dummies.* Chichester: John Wiley & Sons.

Vargo, S.L. & Akaka, M.A. (2012). Value cocreation and service systems (re)formation: A service ecosystems view, *Service Science*, 4(3), 207-217.

Vargo, S. L. & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing,* 68(1), 1-17.

Vargo, S.L. & Lusch, R.F. (2008). Service-dominant logic: Continuing the evolution, *Journal of the Academy of Marketing Science*, 36(1), 1-10.

Vargo, S.L. & Lusch, R.F. (2016). Institutions and Axioms: An Extension and Update of Service-Dominant Logic, *Journal of the Academy of Marketing Science*, 44(1), 5-23.

Varshneya, G., Das, G. & Khare, A. (2017). Experiential value: a review and future research directions. *Marketing Intelligence & Planning*, 35(3), 339-357.

Verhoef, P., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M. & Schlesinger, L. A. (2009). Customer experience creation: Determinants, Dynamics and Management Strategies, *Journal of Retailing* 85(1), 31–41.

Warnaby, G., Kharakhorkina, V., Shi, C., & Corniani, M. (2015). Pop-up retailing: Integrating objectives and activity stereotypes, *Journal of Global Fashion Marketing*, 6(4), 303-316.

Warnaby, G. & Shi, C. (2018). *Pop-up Retailing: Managerial and Strategic Perspectives.* Heidelberg: Springer.

Warnaby, G. & Shi, C. (2019) Changing customer behavior: Changing retail response? The potential for pop-up retailing. *Journal of Customer Behaviour* 18(1), 7-16.

Zeihl, M. & Oßwald, S. (2015) Practices in second hand spaces: Producing value from vacancy. *Ephemera: Theory & Politics in Organization* 15 (1), 263-277.