



Exploring Liquid Lives and Product Lifetimes

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Abstract: Product lifetimes are an important consideration in the context of sustainability. One way to better manage product lifetimes is to promote product service systems (PSS) that complement and/ or substitute traditional forms of product based consumption. PSS satisfy consumer demand by providing time limited access to products via leasing or renting. Here providers typically own the product component of such offerings and thus producer responsibility is extended over the lifecycle. However, while PSS can be found on business to business markets there is a paucity of such offerings on consumer markets. Opportunities that PSS may provide to improve environmental performance are being lost. PSS literature argues that one of the main obstacles to PSS implementation in such markets is the presence of strong consumer object attachments and that PSS simply do not create sufficient value to displace these. However, consumer culture theory (CCT) research suggests that the bonds between certain consumers (nomadic ones) and their possessions are now far from solid: they are liquid. In such instances, consumers highly prize situational value, instrumental use value and immateriality. In other words, demands that form the rational for and may be met through PSS provision. In this contribution we presented selected data from a case study in which pilot baby care PSS were offered to nomadic consumers. The research suggests that such consumers are amenable to PSS provision and that further research is necessary to explore this proposition.

Introduction

Product lifetimes are an important consideration in the context of sustainability (cf. Cooper, 2004). Hence product durability and longevity form the focus of significant threads of sustainable design research. One sustainable design strategy to improve product lifetime management is to encourage the provision and uptake of product service systems (PSS) (Cook et al., 2006). Such innovations can be found on business to business markets, such as the provision of hours of trucking (Stahel, 2006) and business to consumer markets, such as the provision of short term car rental services, e.g. ZipCar (Bardhi et al, 2012). In such instances PSS offerings may substitute or complement traditional product focused consumption, i.e. a PSS may be used instead of or in addition to owning and using a car. PSS have been variously defined (cf. Mont, 2002:139)

“A system of products, services, networks of actors and supporting infrastructure that is developed to be competitive, satisfy customers and be more environmentally sound than traditional business models”.

While PSS are not inherently sustainable, they offer considerable environmental benefits and may form part of the mix of innovations necessary to move society toward more sustainable states (Cook, 2014). The environmental benefits of PSS mainly arise from the opportunity they create for extended product lifetime management and consequently achieve improvements in resource productivity, for example (Cook et al., 2006; Halme et al., 2008):

- If the ownership rights associated with the product element of the PSS are retained by providers then they may manage the costs of provision by specifying more

lasting and longer lasting products. Also, extended producer responsibility might be achieved if the PSS is provided by the product manufacturer.

- A smaller stock of products may be needed to satisfy demand and if customers use these sequentially, intensity of use increases as does the probability of a higher service yield before the product becomes outdated due to outdated technological characteristics, e.g. fashion.
- PSS providers may also use their competencies to select the appropriate products and ensure the correct use of these.

However, while PSS may offer considerable environmental benefits and are provided on business to business markets, implementation rates are comparatively low in consumer markets (Catulli, 2012). Opportunities that PSS may offer to better manage product lifetimes and improve environmental performance are being lost. Reviews suggest that PSS do not add sufficient value in these contexts, principally as they do not meet consumer demand for control, convenience and the experience of ownership, provided by corresponding products (Tukker, In Press).

“Consumers simply value owning things and having control over artifacts, issues that seem less relevant in a B2B context” (Tukker, In Press:130).

However, research in the consumer culture theory (CCT) field suggests that these claims should be unpacked and investigated. For example, the work of Bardhi et al. (2012) suggests that the relationship between material (products) and consumers is changing in some instances: nomadic consumers exhibit and reinforce a liquid relationship to possessions. Here it is suggested that nomadic consumers, “deterritorialized consumers who engage in serial relocation and frequent short-term international mobility” (Bardhi et al, 2012:510) may favour access to products or experiences for short periods rather than product ownership (*Ibid.*). Such consumer preferences for access based consumption (Bardhi and Eckhardt, 2012) may be met through PSS provision. Indeed, a window of opportunity to promote PSS in

certain consumer markets may be opening. In this contribution, we therefore explore this proposition. The remainder of the paper is structured as follows. In the next section, we consider nomadic consumers and liquid relationship to possessions. In the following section, we present a case study in which pilot baby care PSS have been implemented and a liquid relationship to possessions observed among some participants. In the final section, we present conclusions and suggest further lines of inquiry.

2 Nomadic lifestyles and a liquid relationship to possessions

Rooted in anthropological investigations of the relationship between the social and material, much of consumer culture theory (CCT) focuses on the role of possessions in the construction of consumer identity (cf. Arnould and Thompson, 2005). Classic forms of object attachment highlighted in the field, suggest that consumers form strong and enduring bonds with objects that anchor them to certain places and cultures (*Ibid.*). Indeed, this classic perspective reinforces the reasoning in the PSS field about why PSS struggle in consumer markets.

In contrast, CCT research has also explored how global nomadism provides a context in which to reexamine these consumer-object relations and identify alternative relationships to the material world that go beyond traditional notions of extended self (Bardhi et al., 2012). Here, global nomadism is characterized as serial relocation, frequent mobility and deterritorialization (*Ibid.*). Under such conditions, consumers are thought to form situational attachments to objects, appreciate objects primarily for their instrumental use-value and value immaterial or light possessions as well as consumption practices. In other words, rather than exhibit a solid relationship to owned products, a liquid relationship to possessions emerges. Thus acquisition strategies that do not involve the transfer of ownership rights to consumers but access to products and the attainment of outcomes might be preferred by these nomadic consumers. Such access based consumption can be defined as

“transactions that may be market mediated in which no transfer of ownership takes place.” (Bardhi and Eckhardt, 2012:1).

Through access based consumption, consumers acquire consumption time with products. Such consumer demand may be met through the provision of use orientated PSS, in which the ownership rights related to the product, are retained by the service provider and the customer purchases use of the product over a specified period of time. Examples include, sharing/ pooling, renting and leasing. Thus CCT research, challenges the reasons stated in the PSS field for why PSS are not widely implemented in consumer markets and indeed, suggests that PSS offerings may have a reasonably promising future in certain aspects of these.

3 Case Study: Pilot Baby Care PSS

Case study research focusing on the provision of pilot baby care use orientated PSS was completed. The pilot study was funded by the UK Government, while the case study research on it reported here was undertaken as part of one of the authors' doctoral studies. The pilot PSS included the provision of baby car seats. Here, participants could rent (i.e. access) a baby car seat from a participating manufacturer. The PSS offerings were promoted through the National Child Birth Trust (NCT) and a project website. Over 400 people have participated in the pilot project, all of whom had recently given birth or were pregnant. In depth semi structured interviews have been conducted with 23 participants, which expressed a preference to be interviewed via the project's website. Qualitative data generated were analysed using a flexible template approach (Robson, 2011). Preliminary analysis showed that 4 consumers exhibited nomadic characteristics. These form the focus of the results detailed below.

3.1 Results

According to Bardhi et al. (2012) global nomadism involves 1) serial relocation, 2) frequent international mobility and 3) deterritorialization. The lifestyles of the four selected participants exhibit these characteristics. Susan and John are professional actors from Canada and England respectively and have American ancestry. They move extensively for work:

"Well we go where we work...we spend time in America, Canada, here... we are travelling artists."

Amy is a Canadian married to an English husband. She relocated to the UK near Oxford for a research contract for a few years, and now she is returning to Canada in six months:

"We're only going to be here for six more months"

Charlotte is a mechanical engineer working at a British aircraft engine manufacturer and has gone through both international relocations, moving between North America, Texas, Sweden and India:

"I don't think I've lived anywhere more than three and a half years since I graduated from University."

Chiara is an Italian researcher married to an Italian academic and has lived in the UK for a few years. The nature of her work could offer an opportunity for a stable location. However, her husband is looking into alternative employment, which is likely to precipitate another move to a different country.

Thus all participants had undergone serial relocations and frequent international mobility. Interestingly, in contrast to migrant consumers studied in previous research (cf. Belk, 1992) global nomads do not anchor their identity in a given territory. Rather they exhibit deterritorialization, which is reinforced by global mobility. Consistent with the findings of Bardhi et al. (2012), for participants, country of origin did not seem to provide a reference point that shaped participants decisions. Indeed, home seemed to be something they could choose rather than a birth place or permanent residence. However, while participants may not have strong bonds with a particular territory, they are part of cosmopolitan mobile and professional lifestyles which reinforce and shape their preferences. Thus enduring strong attachments to possessions and the tangible are devalued in global nomadism. The uncertainty and unpredictability that characterizes nomadic lifestyles means that the participants resist solid relationships to the material world and do not find identity through linking value in possessions. For participants, events such as frequent relocation liquefy their

views of possessions. Here, they seemed to value detachment and flexibility, and exhibit a somewhat practical logic toward possessions (*Ibid.*). This is characterised by 1) situational value; 2) instrumental use value 3) immateriality. We consider each of these aspects of a liquid relationship to possessions in light of participant responses below.

3.1.1 Situational value

Nomadic consumers exhibit a flexible relationship to possessions, valuing them in each locale rather than forming an enduring attachment over time and space (Bardhi et al., 2012). To some degree, such consumers reterritorialize themselves as they travel. As part of this process, they use products to establish the ability and authority to act in new contexts (*Ibid.*). Thus for nomadic consumers, the situational value of products is highly prized.

Amy, who is going to move in six months, highlights the situational value of the pilot PSS offering.

A "car seat is £150 to buy new but I knew I'd only be using it for six months... So that's ideal for me because I don't have to invest a lot in something I'm just going to get rid of."

In the UK a car seat is a legal requirement and a baby cannot leave hospital by car without one (gov.uk/child-car-seats-the-rules). Interestingly, if Amy was not planning to move from the UK, she states that she would have purchased a car seat

"I would have bought it if I was going to be here indefinitely, I would have bought the (Maxi-Cosi) Pebble" (a model of car seat).

So the liquid relationship she has with the car seat appears to be linked to her temporary UK residence and highlights her need for situational value.

3.1.2 Instrumental use value

A second aspect of liquid relationships to possessions is an emphasis on instrumental use value. Here, use value is defined as the instrumental functionality an object possesses and contrasts the symbolic value that has been emphasized in much consumer research (Bardhi et al, 2012). Instrumental value predominates in global nomadism as it translates cross culturally better than symbolic

or identity value (*Ibid.*). And objects valued for their functionality are also easier to disconnect from without personal loss, and as such they are more liquid (*Ibid.*).

PSS design strategies typically involve examining the functionality of products and meeting such needs for functionality through PSS (Roy, 2000). Thus use value is a major aim of PSS provision. Among the four participants, the use value of the pilot PSS was of interest. For example, Susan and John stated that they needed the pilot PSS to meet their needs for functionality: they would use the car seat for the leasing period to transport their baby in a car (in a safe way) that meets legal requirements.

"we needed it for that amount of time... and it seemed, it was a cost-effective way of having the thing for the amount of time that we needed it."

3.1.3 Immateriality

The physical weight (lightness) of possessions appears to be of importance to nomadic consumers. Possessions valued by this group are flexible, light or in virtual form (Bardhi et al., 2012). Participants valued the intangibility and functionality of the pilot PSS offering. Here they preferred temporary and flexible relationships to products rather than strong enduring ones. For example, Amy stated that

"we have all these kids' toys and everything but, we're going to throw them out in six months... So that's ideal for me because I don't have to invest a lot in something (a baby car seat) I'm just going to get rid of."

Furthermore, Charlotte seems to be decisively against buying many baby products:

"I didn't want to have a lot of clutter, you hear a lot of people who have children and they end up at the end with all the stuff they need to get rid of and we specifically wanted to try to not have that much clutter, just get the minimum of what we needed, because it's so easy to go overboard."

Thus both Amy and Charlotte appear to want to "travel light", which suggests a preference for immateriality exemplified by a positive engagement with the pilot PSS.

4 Conclusions

In this paper we explored the proposition that nomadic consumers exhibit a liquid relationship to possessions that in turn, gives rise to demands for access based consumption (Bardhi et al (2012) which may be met through use orientated PSS provision. The case study research presented here is by no means definitive but suggests that this may indeed, be worthy of further investigation. Suggested lines of inquiry, include:

1) Insights from CCT could provide useful insights in the PSS field: in highlighting the nature of consumption dynamics beyond acquisition. Indeed, a dialogue between researchers working in these fields could be usefully promoted. The future here may lie in combining insights from PSS literature on supply side perspectives with those on access based consumption from CCT. Indeed, an integrated, perhaps less positivistic *socio-technical* perspective could be developed (cf. Cook, 2014).

2) Global nomads who exhibit a liquid relationship to possessions should be further researched to better understand the value of PSS offerings to them and how these can be met.

3) Whether global nomadic lifestyles and liquid relationships to possessions are inextricably linked may also be questioned. Such liquid relations may not be confined to nomadic consumers and thus opportunities to promote PSS may not be limited to this group.

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