CLOSING THE LOOP : INSIGHTS INTO THE ROLE OF PARTNERSHIPS IN FACILITATING REUSE IN THE UK

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1. INTRODUCTION

Product longevity and extending product lifetimes through repair and reuse are recognised as having an important place in waste reduction strategies (Cooper, 2005; Curran & Williams, 2010). These activities, discourage the "churn" of purchasing new items (Cox et al., 2013) and also have a part to play in addressing global concerns regarding resource efficiency, contributing to slowing material flows, conserving resources, reducing energy use and decreasing environmental pollution (WRAP, 2009; ERM, 2011). As such, they have been prioritised in European Union (EU) legislation, being placed above recycling and other waste management treatments in the waste hierarchy introduced in the Waste Framework Directive (75/442/EC), and more recently in the Circular Economy Action Plan (European Commission, 2015).

In order to identify key areas for improvement in maintaining products in their most useful state for an optimum time, it is pertinent to understand product flows in a post-consumer context. This paper explores a partnership between a major retailer and the reuse sector that seeks to support reuse of products discarded by consumers who have recently purchased replacement goods. It traces the movement of discarded products, outlining the roles of the different stakeholders and sets out the product pathways to reuse enabled by this partnership. It makes recommendations for policy makers to encourage the growth of such partnerships to facilitate reuse which have economic and social benefits in addition to environmental benefits that align with circular economy concepts.

2. REUSE ACTIVITY IN THE UK

The routes to reuse are varied and complex, with furniture reuse activity in the UK often being carried out by third sector organisations, whose primary purposes are linked to societal benefits, including anti-poverty, health and well-being agendas (CIWM 2016). Many such organisations use the sale of used goods for fund raising purposes to enable them to fulfil their core objectives, with any environmental benefits being secondary (Williams et al., 2012).

Currently many barriers to reuse exist (Williams et al., 2012; WRAP, 2012), including consumer reticence towards purchasing and owning second-hand items (Bulkeley and Gregson, 2009). Reconditioned and remanufactured products face similar barriers (King et al.,

2006). Consequently, reuse is limited if discarded products need repairs, or minor remedial work, particularly in the case of lower value items (Alexander and Smaje, 2008; WRAP, 2012).

Goods for resale are sourced from many routes; one option is to salvage "bulky waste" items from the household waste stream. The term bulky waste relates to items too large for standard household waste containers (Environmental Protection Act 1990) and includes furniture and white goods. It is estimated that between 20%-70% of the bulky household waste stream is reusable or recyclable, of which one third has high potential for reuse depending on quality issues and necessary repairs (WRAP 2015). Whilst many bulky waste items are suitable for reuse, in practice this remains a possibility, rather than a certainty (Shaw, 2010), perhaps because the route to reuse is often difficult to identify; this includes limited or lack of awareness on reuse options, including donation (Williams et al., 2012).

The RSA (2015) estimate that in the UK 1.6million tonnes of unwanted furniture are disposed of in landfill sites, or are incinerated, through the bulky waste collection system. Reuse organisations in the UK currently divert approx. 117,500 tonnes, a small proportion of this, each year (Furniture Reuse Network, 2015). It is widely agreed that rescuing goods for reuse from the waste stream is problematic. These items often get damaged during transportation and lose reuse potential (Cole et al., 2017) because they are treated as "waste" and receive less careful handling (Zero Waste Scotland, 2015; Cole et al., 2016), with few people appearing to connect reuse to their environmental values (Watson, 2008).

Conserving and reusing furniture has many benefits; it improves resource efficiency, creates employment benefits and provides affordable items to local communities through reuse organisations (RSA, 2015). The reuse sector has made extensive use of collaborative and partnership agreements to deliver its aims (CIWM, 2016), with examples of private and third sector collaborations (SITA UK, 2012) and local authority and third sector initiatives (Alexander and Smaje, 2008; Curran and Williams, 2010) highlighting successes which have identified mutual interests and complementary benefits. Furthermore, sharing of resources is shown to enable enhanced strategic outcomes for all partners (Cole et al., 2014).

3. RETAILER LED COLLABORATIVE PARTNERSHIP

Businesses have come under stakeholder pressure to implement the green agenda (Sarkis et al., 2011). Recognising this, and the economic benefits offered, retailers have undertaken wide ranging activities to reduce carbon emissions in their operations, building collaborations across the extensive supply chains (Ramanathan, 2014). The example given here goes beyond the supply chain, introducing collaborative arrangements into the end-of-life phase of products, bringing external partners into the reverse logistics chain. This evidences the retailers' ambitions to reduce carbon emission in both upstream and downstream supply chains.

A major UK retailer, John Lewis, has been working in collaboration with a reuse membership network, Furniture Reuse Network (FRN) and its member reuse organisations since 2013 to facilitate the reuse of many of the discarded pieces of furniture. The critical elements of collaborative partnerships such as this have been identified as mutuality of benefits, risk, and rewards sharing (Barratt, 2004). These can be evidenced in this collaboration which enables the flow of discarded furniture from the homes of the first owner, through the retailer's reverse logistics, to a reuse hub, or distribution centre, to reuse organisations (Figure 1).

Through this partnership, FRN acts as a conduit for the transfer of items suitable for resale, bridging the gap between retailer and charities, making it possible for the retailer to deal with one body, rather than a multitude of small local charitable groups. Barriers to reuse include

access to suitable goods and damage caused by careless handling (Cole et al., 2016). This collaboration addresses both of these points. The issue of careless handling is addressed by delivery crews collecting "end of first life" items and handling them in the same way they handle the new items they are delivering, therefore maintaining their reuse potential. The retailer meets customer demand for the removal of discarded goods, addressing stakeholder concerns regarding the environmental problems (Sarkis et al., 2011) including poor waste disposal practices by finding a second home for goods through the Furniture Reuse Network and its member charities.



Figure 1. Flow diagram show pathways for first use and reuse facilitated by the reuse network.

The provision of this post-consumer route to reuse is a positive step to closing material loops (Singh and Ordenez, 2016), offering reuse charities access to good quality items which have avoided the waste collection system, and have therefore retained their reuse potential (Cole et al., 2016). Many of the charities involved use the resale of furniture to raise funds to support their charitable objectives, and offers volunteer and job opportunities, often to people socially excluded from education and employment (FRN, 2017). Therefore this arrangement has wide ranging economic, environmental and societal benefits.

4. CONCLUSIONS

Reuse works best for used items that retain some value, and can be accessed without damage during transportation. This partnership enables the recovery of reusable items and increases the prospect of them being successfully reused. There are many examples of small-scale reuse that could operate on a larger scale by joining collaborative partnerships such as this.

Policymakers could assist in the promotion of these ventures by enforcing the principle of producer responsibility for bulky waste, to encourage retailers and manufacturers to receive their goods back at end-of-life and to facilitate reuse. Fiscal measures to be considered include continuing to increase landfill taxes incrementally and introduce a future ban on landfill for bulky waste items. Landfill tax could be ring-fenced to fund reuse collection and waste prevention activities.

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