Contradictions in reuse-based fashion retail – the ReTuna Mall

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Abstract

Purpose

The purpose of this paper is to describe and analyse the management of a novel commercial fashion retail concept – a shopping mall based on reuse and a local circular fashion supply chain – with the aim of identifying potential strategic issues with the concept.

Design/methodology/approach

This is an explorative case study, based on observations and interviews with shop managers, employees and the mall management.

Findings

The reuse concept strongly influences the mall's strategy, and the sourcing process is a key factor. The local reuse-based fashion supply chain follows the typical reuse process, but this study shows that the business logic that underpins the commercial strategy is not in line with the reuse and social enterprise ethoses that the mall ostensibly follows.

Research limitations/implications

This study illustrates the difficulties inherent in organising a reuse-based mall due to the need to combine a commercial strategy, a local and circular fashion supply chain, and a social enterprise ethic.

Practical implications

The findings highlight the mall management's responsibility for the sourcing of goods, the need for a closer cooperation between mall management and tenants in a reuse-based mall, and the need for competence in terms of reuse, fashion, and retail in order for the concept to be developed further.

Originality/value

ReTuna represents a new fashion retail phenomenon – the reuse-based shopping mall – that has not been studied yet.

Keywords

Fashion retail, textile reuse, clothing reuse, mall management, fashion supply chain, recycling, sustainability, circular supply chain.

Article classification

Research paper

Introduction

A shopping mall is typically a building that contains various stores and tenants, but is managed as a single property (Pitt & Musa 2009). The overall goal for any mall is commercial, i.e. to sell goods and create profits (Goss 1993), and this goal is mirrored in the mall's commercial strategy. The co-location creates possibilities for each tenant to sell goods to their own customers as well as those of other tenants, which would not occur if tenants were located apart (Carlson 1991). The shared location also makes it possible to sell more through control of the in-house environment and influence over visitors' movements (Goss 1993). To attract customers, malls target groups such as tourists or local shoppers (Csaba & Askegaard 1999) and adopt a profile, e.g. value- or fashion-oriented, environmentally friendly, or a theme similar to that of an amusement park (Carlson 1991, Ghosh & McLafferty 1991, Csaba & Askegaard 1999, Pitt & Musa 2009, Tan 2015). The trend of creating unique profiles and adjusting malls to suit the local culture has significantly altered the concept as it was originally conceived in the USA in terms of both management and design aspects, such that it is even possible to have a church to attract visitors (Salcedo 2003, Singh & Bose 2008).

Following the trend of malls with a particular profile and contemporary discussions regarding sustainability, a reuse-based shopping mall, ReTuna, was opened in August 2015 in Eskilstuna, Sweden. The mall collects goods donated by residents of the local area and distributes them to its tenants, who process and sell them. Both the donated goods and the administrative costs (payment of staff, etc.) of the supply of goods are included in the rent that the tenants pay. The shops at ReTuna mostly sell reused products but, this unconventional sourcing of goods aside, the mall aims to be a traditional commercial mall, with individual outlets and a café that serves lunch and snacks to weary customers. The interior environment is also decorated in an ordinary style for a shopping centre, and the mall organises activities such as 'Crazy Monday', with special offers to attract customers.

To reiterate: ReTuna imitates a traditional mall that gathers tenants and customers to create profit, but is based on the concept of reuse. This strategy is novel, and so ReTuna provides an opportunity to study the combination in the context of fashion retail. Accordingly, the purpose of this paper is to describe and analyse the management of a novel commercial fashion retail concept – a shopping mall based on reuse and a local circular fashion supply chain – with the aim of identifying potential strategic issues with the concept. Our analysis shows that the two ethoses (reuse and commercialism), as well as a third (social enterprise), are not aligned, and in some cases even contradict one another. In terms of being both enablers and limiters, these competing priorities affect daily and strategic activities at the mall. Through its findings, the paper broadens existing knowledge regarding sustainable fashion retail concepts from a management perspective.

Literature Review

The literature review provides a background to the basic assumption of this study: that the local circular fashion supply chain affects the mall's commercial strategy and management. Thus, it presents a normative perspective on mall management and a discussion of reuse-based circular fashion supply chains. Accordingly, these models are used in the analysis of the empirical data.

Shopping mall strategy

The literature review on mall strategy is based on the model of six factors proposed by Yiu and Yau (2006) (Figure 1). Both mall management and the tenants influence the strategy, which is the aggregated result of all of the activities undertaken. The integration of and coordination between mall management and tenants within a mall varies from total to none (Mertes 1949). In some ways the mall management is very active, managing the business side of operations thoroughly, but in others acts in a more hands-off way, in the manner of a landlord. In the literature it is stressed that collaboration and coordination between mall management and tenants is an important factor of success (Howard 1997, LeHew & Fairhurst 2000); in practice, however, collaboration is rare, and conflicts and bargaining are typical (Howard 1997).

Mall Strategy					
Location	Architectural design	Property management	Promotional activities	Leasing strategy	Terms of tenancy
Competition & demand	Features; style; facilities	Cleanliness; indoor air quality	Exhibitions; tv; displays; games	Theme; catchments; target groups	Rental level
Accessibility; transportation	Age; atmosphere; image	Security; crowd & emergency control	Variety show; fanfare	Tenant mix; class of products	Turnover rent; rent–free period
Demographic; pedestrian flow	Size; circulation; spatiality	Operations & maintenance	Disount coupons; card discounts	Anchor tenants; magnet shops	Vacancy rates; renewal terms

Figure 1 - Mall positioning strategy, adapted from Yiu & Yau (2006, p. 278).

Location refers to the surrounding retail environment, the ability of customers to access the mall, and the demographics of the trade area covered by it. A mall can be described as region-, community-, or neighbourhood-oriented and, in general, the larger a mall is, the larger the trade area that it covers. Access has to be convenient, and the trading area has to generate sufficient traffic for the enterprise to be financially viable (Brown 1976, LeHew & Fairhurst 2000). Along with the physical location, access is also determined by opening hours, communications, parking places, and visibility (Mertes 1949, Mejia & Benjamin 2002).

Architectural design includes both spatial and non-spatial factors, and the facility must be appealing with regard to design, layout, music, interior, and decor (Brown 1976, Wakefield & Baker 1998, Pitt

& Musa 2009). The building's appearance (size, window displays, pedestrian spaces, and position of tenants) has relevance for both visitors and tenants, since some placements within the building are better than others (Mejia & Benjamin 2002). *Property management* is also related to the appearance and function of the mall.

Promotional activities are organised at the mall and/or tenant levels, depending on how actively the mall management works to attract visitors. Events, in-house marketing, and advertisements for special offers across various marketing channels are typically used to attract visitors.

Leasing strategy focuses on the profile and mix of tenants. It takes time to reach full occupancy in a new mall, and it is important that the mall management continuously refines the mix of tenants (Kirkup & Rafiq 1994). The tenant mix relates not only to the stores, but to the possibilities for eating and entertainment (Wakefield & Baker 1998). New experiences in addition to shopping, such as cinemas, carousels, play zones for children, and sporting activities, have been added to broaden the range of activities provided by malls, as recreation has been found to be an important benefit for visitors (Terblanche 1999, Ng 2003, Erkip 2005, Howard 2007, Singh & Bose 2008). A wide range of experiences attracts customers (Ooi & Sim 2007). A key in the tenant mix is the anchor store, which is typically a well-known one that sells a wide variety of products (Ghosh & McLafferty 1991, Simona Damian et al. 2011).

Terms of tenancy relate to the share of the mall that is leased and the rents that the tenants pay. A related aspect is how empty spaces are managed as, instead of being a sign of failure, they can be used for temporary pop-up shops, exhibitions, or as an area in which to test new ideas that contribute to improving the experiences of visitors (Csaba & Askegaard 1999). In summary, the reviewed literature on mall strategy describes and recommends activities that can be used to optimise the commercial aspect of a mall, i.e. selling goods and making a profit.

A reuse-based circular fashion supply chain

Reuse is one of the common strategies that actors in the fashion industry practice in order to ensure the sustainability of the fashion supply chain (Kant Hvass 2016). 'Reuse' can be defined as the collecting of old products with the purpose of using them again (Dervojeda et al. 2014) and, through the reuse of fashion, the production of new garments can be avoided and a reduction of the associated negative environmental impact achieved (Woolridge et al. 2006, Farrant et al. 2010, Castellani et al. 2015). In addition, garments that are no longer suitable to wear can be converted into other products, such as cleaning cloths, or used in the production of insulation, furniture, and art. Various activities, such as collecting, sorting, distribution, and pricing, have been found to be critically important to the reuse-based fashion supply chain (Tibben-Lembke & Rogers 2002), and a number of studies have been made on reuse in various contexts (Hawley 2006, Morley et al. 2009, Russell et al. 2010, Abraham 2011, Botticello 2012, Ekström & Salomonson 2014, Gustafsson et al. 2015, O'Reilly & Kumar 2016).

The reuse-based circular supply chain has been illustrated in different ways; in this paper, the model shown in Figure 2 is used.
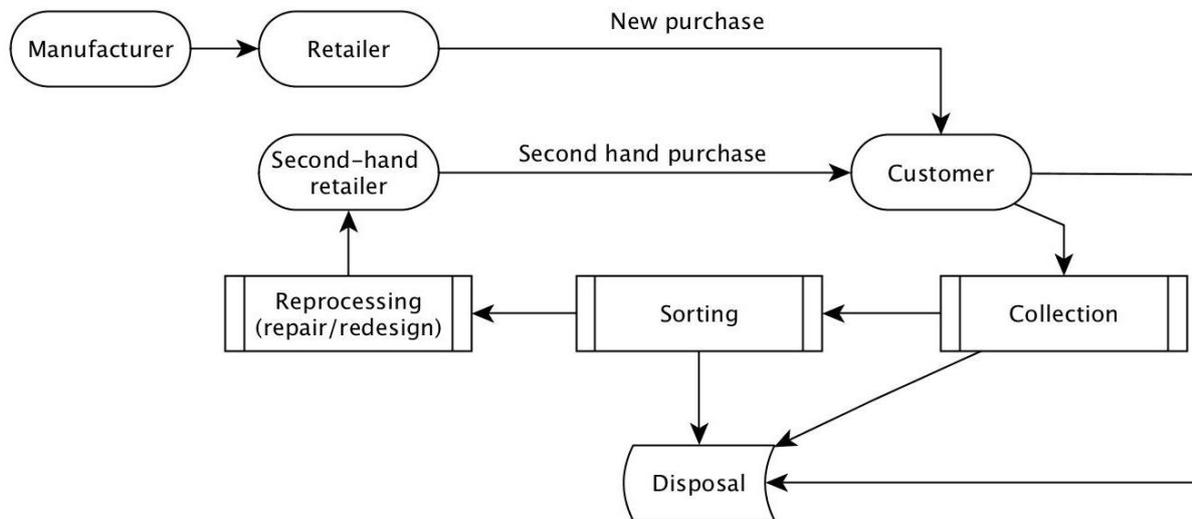

Figure 2 – Reuse-based circular fashion supply chain; authors' model.

A reuse-based circular fashion supply chain consists primarily of three processes – collection, sorting, and reprocessing – where collection is the process of obtaining discarded products from consumers, sorting entails the inspection and categorisation of products according to quality and type (Rogers & Tibben-Lembke 2001, Abraham 2011, Hawley 2006), and reprocessing involves various activities, including repairing, washing, etc., undertaken in order to restore functionality and/or enhance the utility of the product (Abraham 2011).

Collection of waste and used products is not a new concept; in recent years, however, formal models have been created to guide the recovery of waste and used products (Besiou et al. 2012). In developed countries, collection is mainly performed by charitable organisations (Tojo et al. 2012); in many regions, government authorities also collect used garments, although the collection percentage for these items is much lower than those of products such as paper, plastic, and glass (Woolridge et al. 2006). Manufacturer-driven collection is in general superior to third-party efforts (Chan & Wong 2012). Convenient access to collection sites is important to consumers, and entails them being placed near to e.g. their homes, or gas stations (Min et al. 2006, Ha-Brookshire & Hodges 2009, Morgan & Birtwistle 2009, Goldsmith 2012).

Sorting is the second activity that influences the future path of a collected garment (Jayaraman et al. 2008). Through various stages, waste and different fractions of clothes are separated. The majority of the sorted goods are categorised as clothing for export, but other common fractions include wiping and polishing cloths, items for recycling, and clothing for the domestic market (Hawley 2006). The process of sorting fashion garments is complex due to the large variety of materials and products. The process of sorting clothes is mainly performed manually, and depends on the skills and judgement of

the individuals performing it (Hawley 2006, Botticello 2012). Clothes of good quality are sold in local second-hand shops, while those of lower quality are shipped to second hand-markets in Eastern Europe, Asia, and Africa.

It is always advantageous to remove unwanted products as soon as possible so as to maximise the extracted value. The sorting can be done afterward or alongside the collection or in combination with processing and/or reprocessing stages Moise (2008). When sorting and reprocessing is combined, handling becomes easier and the cost of transporting unwanted materials is avoided.

A proper sorting facility of the correct capacity and in the optimal location improves efficiency. Another important factor is the connection between the collection and sorting facilities (Beamon & Fernandes 2004). Decentralised, i.e. near the collection site, sorting is one way of reducing high transportation costs, while centralised sorting reduces high inventory costs (Abdallah et al. 2012). Many sorting organisations also ship unsorted garments to developing countries due to sorting facilities being cheaper there.

Reprocessing, such as repairing, redesigning, and washing, is the third element that enhances the usability of products (Min & Ko 2008). Reprocessing can improve, deteriorate, or restore the functionality and value of a product (Hawley 2006, Abraham 2011). The distribution of responsibility for operations, technical and scientific skills of staff, types of equipment available, and cost also affect the reprocessing process. A special focus should be given to reducing costs during this stage (Zhao et al. 2013) due to the fact that low prices attracts consumers (Das & Dutta 2015).

Summing up

The literature review presents two perspectives – strategic mall management and a reuse-based circular fashion supply chain – which are here used to study ReTuna. In a traditional mall the management is responsible for general issues, and the tenants for their own stores and supply of products. In a reuse-based mall, however, the supply of goods through the circular fashion supply chain, illustrated in Figure 2, is a key activity that has to be managed. The chain can be decentralised, i.e. each tenant organises their own process, or centralised, i.e. processes such as collection and sorting are joint. With the former no collaboration is required, and the mall is traditionally organised; the latter, however, requires a far greater degree of collaboration. To conclude; the basic assumption for this study is that the choice of organisation of the circular fashion supply chain will affect a mall's strategy and how it is managed.

Method

The case study of ReTuna is inspired by ethnography, and based on interviews and observations that involved studying actions and practises within the mall. One or two representatives from each store (the owner, store manager, and/or someone from the staff) and the mall manager were interviewed. In

total, twelve semi-structured interviews were performed, with each lasting 30-60 minutes. The interview guide covered areas such as the store, education, reprocessing activities, and collaboration, and the interviewees were asked to describe the situation in their particular store. All of the interviews were transcribed into the NVivo software package.

Observations in each store and the collection and sorting centre were performed on three occasions (November 2015, January 2016, and May 2016). The latter observations took place during a week, and involved each store being observed for between two and eight hours. Extensive observations were conducted in stores that sell clothing, and in the collection and sorting centre. During the observations, questions related to the themes listed in the interview guide were asked. Research notes from the observations and interviews were made the same day, and 325 photographs further documented this process.

The transcribed interviews and research notes were analysed using NVivo. The software has been used for deductive and inductive analysis, and for forming both theoretical and empirical categories. The photographs were used as additional sources of information and supported the analysis of the interviews and research notes.

Findings

The findings are presented in two sections: the mall strategy of ReTuna and its tenants, and the reuse-based circular fashion supply chain of ReTuna.

The mall strategy of ReTuna and its tenants

The local municipality's energy and waste company owns the mall, but a unit at the local municipality's labour and education department manages the collection and sorting centre. The mall is located next to a waste recycling station in an industrial area on the outskirts of the city. Both the mall and the waste recycling station were opened at the same time, in the autumn of 2015. The distance to the city centre is five kilometres but, as public transportation is limited, personal cars are the most convenient form of transportation for both customers and those intending to donate.

The total area of the mall is 5,000 square metres, of which 3,600 are leasable. The building has the shape of a box, is made of sheet metal painted a rusty red colour, and was previously a logistics centre. On average, 400 visitors dispose of goods at the waste recycling station each day. According to the mall manager, an average of 600 visitors have entered the mall every day since it opened. The mall is open seven days a week, except for public holidays. The entrance hall features a large lamp that has the appearance of a birch tree, but decoration in the mall is otherwise sparse. Concrete and glass dominates the interior, giving it an industrial but airy character.

Promotional and educational events, such as workshops with a reuse and/or repair theme, auctions, study visits, exhibitions, reduced price days, and swap days (i.e. clothes and toys), are regularly held. The aim of the events is to both attract visitors and raise awareness of the concept of reuse. The mall management creates the agenda and the tenants are invited to participate in the planning, but tenant participation has apparently been limited. These events are likely the cause of increasing numbers at these times, according to the management.

The financial resources for marketing are limited, and the channels preferred by both mall management and the tenants are social media and web pages. An unexpected but important marketing channel has been the large number of conferences and study visits that the mall has hosted: While attending these events many of the participants shop, later spreading word about it and in some cases returning with family and friends.

The mall contains nine stores, a restaurant, a reuse college, an exhibition area, and three (at present) unmanned pop-up shops in the walkways, all of which is distributed over two floors. The number of pop-up shops in the mall varies from time to time. A summary of the mall's retail tenant mix is provided in the Appendix.

The ground floor of the mall is smaller than the second floor as the site plan was strongly influenced by the collection and sorting centre and its connection to the waste recycling station. The collection and sorting centre is situated within the fenced area of the waste recycling station, while the mall entrance and the stores are outside the fence. In spite of these spatial constraints, each tenant has had the opportunity to influence the location of their store. Besides the collection and sorting centre there are no logistical zones, such as goods elevators and culverts, and so the movement of goods to and from the stores is carried out in public spaces.

The signing of a contract between an entrepreneur and the mall management is preceded by a discussion of the business plan in relation to the donated goods and number of customers to be expected. The contract signed regulates the rent (which differs between tenants) and which goods are included in the sorting list (which are included in the rent). The sorting list can be subsequently changed and re-negotiated if e.g. the store wishes to change its range of products or if the influx of donations changes in terms of object types. As a result of financial support from the municipality, the rent for the mall's first two years is reduced, but this will be removed from the third year onwards, at which point the mall is expected to begin breaking even and then turn a profit.

Most of the shops are furnished incrementally, often with donated items, resulting in most not having a unifying theme. Each is mandated to design and organise itself, including issues such as playing music, but none of the interviewed store representatives described a clear interior or store strategy. As

each store decides what music is played within, the choice of music varies depending on who is working.

Most of the shops in the mall are staffed by one or two people, who generally have no previous experience of or relevant experience or training relating to the retail or fashion industry. The majority of the employed store assistants are participants in job-training programmes or similar. As the stores are often staffed by only one assistant at a time, it is difficult for goods to be fetched from the collection and sorting centre, or other tasks to be performed outside the store. The solution to this has been collaboration between the stores, with store assistants helping one another in watching stores, moving large and/or heavy products, and administrating payments for unstaffed pop-up shops.

The mall management does not provide guidelines for pricing. The shops typically compare a product with similar ones available on the internet and then offer a price that is around one fifth of this. Prices can be adjusted later, either if a customer haggles or if the product has not sold. In general, clothes and textiles are cheap. In the store ClotheZ, a men's suit that cost 2,000 SEK when new is sold for 125 SEK; shirts are 50 SEK and many other garments are 10 SEK. In the store BabieZ & KidZ, most childrenswear items are 20 SEK.

The reuse-based circular fashion supply chain of ReTuna

The core of the mall is the collection and sorting centre, from which the tenants obtain the majority of their products. The centre is open seven days a week, except public holidays. Goods are also collected through containers at two other waste recycling stations, one of which is located in the same city and the other in a nearby city. Three teams of three people and two team leaders work in the collection and sorting centre. On two days each week the centre is staffed with all three teams; on the other five with two.

Those who wish to donate goods drive into a roofed gateway, where staff from the centre help to unload the goods onto trolleys, which are pushed into the sorting centre. Large items such as furniture are placed in the middle of the centre, while small items are placed on benches at the back of the room for sorting. The sorting is then performed according to each store's agreed-upon sorting list, leaving aside clothing and textiles. In some cases one goods type is split between multiple stores, and in these cases the staff divide the products equally between them. Each store has its own storage area of 15 square metres in the centre, which is where the staff place the sorted goods. Some of the shops also rent additional storage areas. Over the course of the first year of operation, the staff in the centre have learned what kind of goods each store wants, and what should be immediately disposed of.

As the staff in the collection and sorting centre do not sort textiles and clothing, store assistants from each clothes store do this. The store assistants open the packages, briefly sort the clothes into rough categories, place childrenswear in the storage areas of the two shops that sell these, and pick the

garments that they want. Clothes that are not picked are placed in pallets, which are either disposed of or sent to a national charity organisation when full. The sorting procedure for clothes is repeated every day, and only a small percentage of the donated clothes are sold in the stores.

The sorting of clothing and textiles is based on the judgement of individual staff members regarding what is possible to sell and what is missing in the shop, i.e. what has been sold in the last few days. This individual judgement results in differences in what is picked, as one person may base their sorting on specific brands while another may reject brands and instead choose clothes based on their design. Only one shop, ClotheZ, has an area that is dedicated to a theme, which changes depending on the season, e.g. white dresses and costumes when students graduate from high school and polo shirts during the summer. The lack of structure in the sorting, limited storage possibilities, and variation in the influx of clothing results in disparities in each store's assortment regarding size, quality, and types of clothing.

Each tenant reprocesses products differently in terms of both which processes are performed and how these are undertaken (see Table 1). The store ClotheZ rents an extra space within the mall for washing, ironing, and repairing donated clothes. The space is equipped with household equipment such as a washing machine, a dryer, a steam cleaner, and clothes irons.

In total, five of the shops reprocess clothing and textiles. Three of them include redesign in the reprocessing. The store owners and/or assistants perform the reprocessing in the store, in an external facility, at home, or in the collection and sorting centre. Redesigned products are often made out of old clothes, and can be clothes with additional prints or textiles that have been transformed into accessories, furniture, baby buggy accessories, or art.

Table 1 – Tenants' reprocessing of clothing and textiles

Store	No reprocessing	Wash	Iron	Repair	Redesign	Description of Reprocessing
Regional Charity	X			(X)		Does not reprocess in general. Has started to prepare for repairing clothes on a small scale.
KidZ	X	X				Some goods are not reprocessed. Clothes are washed at home.
FurnitureZ & TextileZ					X	Textiles and clothes are redesigned at home, in the store, or in the sorting centre, and made into other clothes, accessories, art, and furniture.
ClotheZ	X	X	X	X	X	All clothes are washed and ironed at the mall. Some goods are redesigned in another facility under another brand.

BabieZ & KidZ	X				X	Most goods are not reprocessed. Some childrenswear is redesigned. Baby buggy accessories are produced using redesigned fabric/clothes. Redesigning is undertaken at home or in the store.

The staff in the collection and sorting centre are instructed by the mall management to not reject any donations. Broken products or products that none of the shops want should be disposed of later, although occasionally the collection staff refuse to accept such products. In these cases, the owner has to dispose of the goods at the adjoining waste recycling station.

None of the stores have a deadline for unsold products, but each has a similar approach: products that have not been sold after two or three months are generally disposed of. Unsold items are in some cases sold at very low prices, given away via for-free bins, or sold to waste dealers. Garments that the store ClotheZ does not sell are stored in the reprocessing room, but when these clothes will be sold or otherwise disposed of has not been decided.

The influx of donated clothes and textiles has exceeded expectations, meaning that the shops are not able to reprocess and/or sell all of them. As a result, the mall management began a project to develop local reprocessing; as the project group that was formed to investigate possible solutions met with too many problems, however, the mall management instead opted to cooperate with one of the larger charity organisations in Sweden, which currently collects the clothing and textiles that the shops have not picked and includes them in its own sorting process.

Some of the donations during the first year were goods types that are not sold by any of the tenants, such as kitchen equipment and household accessories, and these were disposed of. The changing composition of the influx of donations has resulted in the opening of a new store, as well as the expansion of already-established ones.

Discussion

A sourcing strategy that relies on donated goods and reuse has resulted in a mall with a strong profile. The reuse concept has developed into an anchor that attracts customers, and is an obvious part of the process at the mall that affects both everyday activities and the commercial strategy. The fact that the mall is located near a waste recycling station is one of the ways in which the reuse concept affects the commercial strategy both architecturally and in terms of location.

The consequences of the location are three-fold: It is convenient for people to donate their unwanted goods at the same time as disposing of waste; it is difficult to access since it is situated away from the city centre and does not have good public transportation links; it shares the site with the waste

recycling station and a logistics centre, and so is not a wholly retail environment. For customers with cars, access to the mall is easy and parking spaces plentiful, but without a car it is more difficult. Convenient access is an important factor in a mall's strategy (Mertes 1949, Brown 1976, LeHew & Fairhurst 2000, Mejia & Benjamin 2002), but convenient access to a reuse-based mall entails a balance between those who are donating goods and those who wish to shop, and there may be little overlap between the two. From a purely commercial perspective, another location would likely have been preferable.

Additional examples of the effect of the reuse ethos on the commercial strategy include the fact that donated goods are often used to furnish the shops, and that the location of the collection and sorting centre affects the layout of the mall. Layout and interior design, as well as other facility factors, are important parts of a mall's strategy (Brown 1976, Wakefield & Baker 1998, Pitt & Musa 2009). In the case of ReTuna, each shop's displayed merchandise, interior, and music determine the mall's expression, as there is no common interior theme or store design. Instead, the mall's expression is dependent on each shop's owner and staff. In many cases interiors consist of donated furnishings and goods, creating a large variety of expressions. The broad range of store layouts, designs, and furnishings gives the impression of flea markets or second-hand shops, even though the stores attempt to appear otherwise. The clothes stores have some resemblance to traditional fashion shops, but the visual merchandising that is typical of a fashion store is missing. It is thus obvious that the mall concept itself is not sufficient to rid one of the impression of visiting a second-hand shop. The reuse ethos not only affects the commercial strategy, however, as the reverse is also true. One example of this is the fact that many of the garments that are donated to the mall are rejected during the sorting process by staff who believe that they will be either impossible to sell or too time-consuming or expensive to reprocess.

The reuse concept at ReTuna bears similarities to the social enterprises studied by Gelbmann and Hammerl (2015), and follows the reuse-based fashion supply chain shown in Figure 2. However, it should be noted that ReTuna's reuse process is decidedly non-standardized; instead, both collection and sorting are dependent on the individual judgment and decisions of staff. The sorting situation is similar to those described by Hawley (2006) and Botticello (2012): The results depend on the workers, the product, and customer demand, with an emphasis on individual workers' preferences and knowledge. Hawley (2006) describes how experienced workers perform advanced sorting, while inexperienced workers do the initial, obvious sorting and through this system the competence of the worker is developed step by step. The skills of the staff at ReTuna are limited, as no one has a formal education relating to retail or fashion, and experience is limited. In the end there is no one to learn from. A reason for this is that much of the work performed at ReTuna, in both the collection centre and stores, is performed by employees who are part of labour market measures such as job training for those who have been unemployed for a long time, internships for immigrants, or job subsidies. From

the perspective of society these are important activities, but this situation also influences how the mall and stores are managed. Hawley (2006) describes a systematic sorting process, and this is missing at ReTuna, where the sorting takes a form that is more akin to random searching. A possible reason for this and various other conditions at the mall is the absence of retail/fashion knowledge and experience, and the fact that the individuals enrolled in labour market measures have other goals than developing the mall and its concept, e.g. practicing their Swedish or becoming better qualified for other employments. Thus, the social enterprise ethos presents itself as a third factor that affects both everyday and strategic activities at the mall.

Ultimately, the three ethoses – the commercial mall strategy, the reuse process, and social enterprise – are not always in harmony, and in some cases even obstruct one another. For the mall to develop further it is essential that these elements be dealt with, both on the store and the mall management levels. One possible scenario is that one of the ethoses will become dominant; that e.g. the commercial strategy will be strengthened through increased demands on professional conduct on the part of the tenants, or that the labour market measures will become the most important goal and affect how the reuse process and mall are managed.

Conclusions

The purpose of this paper is to describe and analyse the management of a novel commercial fashion retail concept – a shopping mall based on reuse and a local circular fashion supply chain – with the aim of identifying potential strategic issues with the concept. Through interviews with representatives of the mall management and the tenants and observation of activities at the mall, including the collecting of donated clothes and store sales, the practices of the mall have been studied.

There are three prevailing ethoses at ReTuna – commercial, reuse, and social enterprise – that affect strategic and everyday activities. In Figure 3, the reuse processes, involved actors, and identified examples of impacts are mapped out. The reuse ethos and the way in which the mall management organises the sourcing of goods affect the mall's commercial viability and the possibilities available to each store. The social enterprise ethos, on the other hand, affects the reuse ethos and the commercial strategy, as the fashion supply chain process is dependent on each employee's judgement and initiative, and in many cases the employees are involved in labour market measures and lacking in education in and/or experience of fashion and retail. The goal of reusing as much as possible is affected by that of employing those without jobs and the commercial realities that the mall operates within. One result of this is that only a small percentage of the donated clothes and textiles are sold. More systematic sorting and reprocessing activities could increase the sorting capacity and number of garments sold. Gelbmann and Hammerl's (2015) claim that employees involved in labour market measures in reuse enterprises need support and supervision is supported by this study, which shows

the importance of providing proper support from both commercial and reuse ethoses in the case of a fashion retail enterprise such as ReTuna.

The quantity of clothes donated to the mall is significantly larger than that sold, and the clothing stores all have items that they cannot sell. This clearly demonstrates that there is a disparity in the donation of clothes, the retail mix, the reprocessing of the clothes, and customer demand. The situation raises the questions of whether sorting and reprocessing can be done differently, and whether the right customers are being targeted. Further studies of which kinds of clothing and reprocessing processes are successful and result in purchases could help to develop the sorting and reprocessing. Studies of donors and customers could shed light on the characteristics of these groups. Together, such studies could reveal flaws in the coordination between donation, sorting, reprocessing, selling, and demand.

The reuse mall has only been open for one year, and there has been continuous development during this time. This study is a snapshot of the actors and activities that occur within it; nevertheless, it provides lessons for stakeholders in similar reuse-based projects, and expands our current knowledge of reuse in a retail fashion context.

Mall management

The social enterprise ethos affects the commercial strategy
* Tenants and staff with limited retail and fashion experience and training

The reuse ethos affects the commercial strategy
* Interior design and store layouts are determined by the goods donated
* Strong interest in visiting the mall and studying the reuse concept
* Limited possibilities for established brands with the reuse business model
* The mall management must handle sourcing (the collection and sorting process)

The commercial strategy affects the reuse ethos
* Economic goals determine the kind of stores that are accepted as tenants

Tenants

Reuse perspective affects commercial strategy
* Donated goods used as interior in shops

Social enterprise perspective affects commercial strateg
* Unsystematic sorting and reprocesing due to limited knowledege and experience
* Limited experience and education in shop management and shop design

Commercial strategy affects reuse perspective
* Only a limited share of donated goods is repcorcessed due to what is estimated as possible to sell

Collection & sorting centre

The commercial strategy affects the reuse ethos
* 'Relatively few donated goods are picked due to many being considered to be impossible to sell

The social enterprise ethos affects the reuse ethos
* Unsystematic sorting due to limited training and experience

Consumer visits the waste recycling station

Consumer donates to the mall

Reusable quality goods collected

Usable goods sorted first, according to contract

Each tenant sorts usable products a second time

Garment for sale in store

Garment reprocessed
* Washing
* Ironing
* Reparing
* Redesign

At another facility

At home

In shop

In the collection & sorting center

Store attributes:
Price
Visual merchandising
Selection on offer
Waste management

Items disposed of at waste recycling station

Consumer visit ReTuna for shopping

Consumers

The reuse ethos affects the commercial strategy
* Donations convenent due to proximity to waste recycling station
* Non–retail environment due to waste recycling station and logistics centre

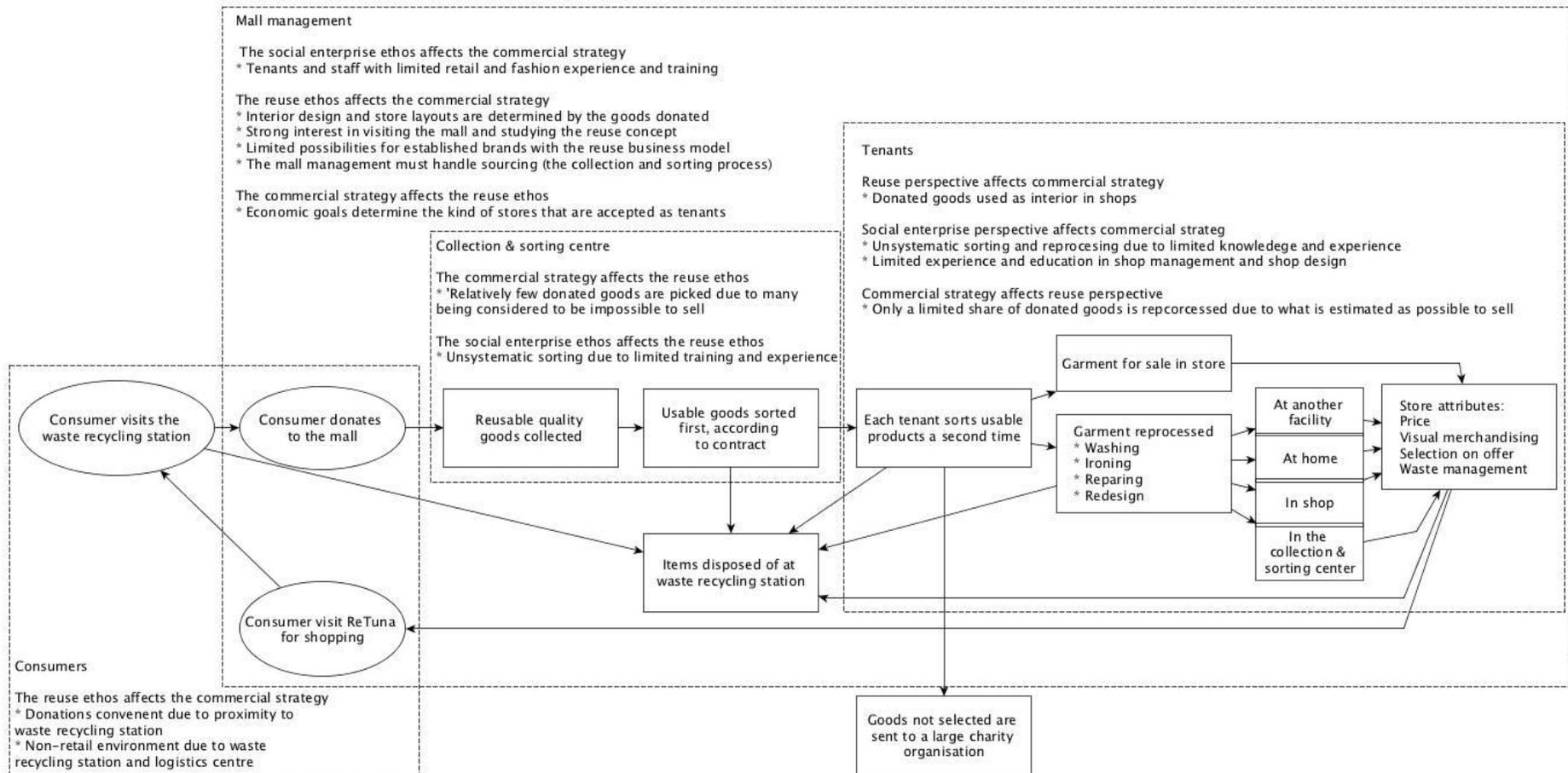Goods not selected are sent to a large charity organisation

Figure 3 – Reuse process, actors, and impacts

Appendix – Retail tenant mix

Company	Type of company	Store/ Pop-up store	Goods	Clothes	Reprocessing	Sourcing	Education / Experience
Regional Charity	Charity organisation	Store	Clothes, household equipment, furniture, art, music, movies, decorations, musical instruments	Yes	Generally, no. Has started to prepare for repairing clothes on a small scale.	Donated goods.	Education provided by the charity organisation. Employees have retail experience from previous jobs.
ChildrenZ	Private company	Store	Toys, childrenswear, car safety seats for children, organic skincare products	Yes	Washes clothes, tests electronic toys.	Primarily donated goods. Some new products (skincare products).	No experience of retail or fashion.
FurnitureZ & TextileZ	Private company	Store	Furniture, decorations, art, textile products, clothes	Yes	Most goods are restored/repaired or repainted/redesigned, some are sold without reprocessing.	Donated goods.	Has sewn clothes for own household and friends. Engineering and blacksmithing/carpentry education.
ClotheZ	Private company with a social profile	Store	Menswear, womenswear	Yes	All clothes are washed and ironed. Some goods are redesigned.	Donated goods.	No previous experience of retail/fashion.
SportZ	Private company with a social profile (same as ReStyle)	Store	Bicycles, outdoor activities, garden tools	No	Repairs bicycles and garden equipment such as lawnmowers.	Donated goods.	No previous experience of retail/ fashion.
ComputerZ	Private company	Store	Computers, audio-visual equipment, mobile phone accessories	No	Tests and repairs all goods. Uses parts from broken devices to repair others, and sells spare parts.	Mostly donated goods. Some new products.	Worked with computers as a hobby. Store manager has a Master's degree in business economics.

BuildingZ	Unit within the municipality that works with education, job training, rehabilitation, and jobs for people with disabilities	Store	Building material, building equipment, white goods, firewood, wooden goods	No	Most goods sold without reprocessing. Repairs on a small scale.	Donated goods; damaged white goods (supplied by a carrier company).	No previous experience of retail.
BabieZ & KidZ	Private company	Store	Childrenswear, maternity clothing, toys, baby care products, baby buggy accessories	Yes	Most goods are sold without reprocessing. Redesigns some childrenswear. Produces own collection of baby buggy accessories, childrenswear, and toys using both new and redesigned fabric/goods.	Mostly donated goods. Collects used baby buggies/baby buggy parts. Uses new fabric for parts of own collections. Sells some new, mostly ecological, baby products.	One of the owners previously ran a similar store for three years. The other owner has run a business where she designed and sewed baby buggy accessories.
Light	Private company	Pop-up store	Lamps	No	Redesigns all products.	Mostly donated goods (aside from bulbs/electronic parts).	Unknown (no interview).
ReFurniture	Private company	Pop-up store	Furniture	No	Redesigns all products.	Donated goods.	Unknown (no interview).
BoxeZ	Private company	Pop-up store	Moving boxes	No	Goods sold without reprocessing.	Donated goods.	Unknown (no interview).
KitchenZ	Private company	Store	Kitchen accessories and decorations	No	Goods sold without reprocessing.	Donated goods.	No previous experience of retail. Worked in ClotheZ for three months.
Museum	Owned by the County Council	Pop-up shop	Souvenirs	No	-	Mostly new products.	Unknown (no interview).

References

Abdallah, T., Diabat, A. & Simchi-Levi, D. (2012). "Sustainable supply chain design: a closed-loop formulation and sensitivity analysis". *Production Planning & Control,* 23(2-3), pp. 120-133.

Abraham, N. (2011). "The apparel aftermarket in India-a case study focusing on reverse logistics". *Journal of Fashion Marketing and Management: An International Journal,* 15(2), pp. 211-227.

Beamon, B. M. & Fernandes, C. (2004). "Supply-chain network configuration for product recovery". *Production Planning & Control,* 15(3), pp. 270-281.

Besiou, M., Georgiadis, P. & Van Wassenhove, L. N. (2012). "Official recycling and scavengers: Symbiotic or conflicting?". *European Journal of Operational Research,* 218(2), pp. 563-576.

Botticello, J. (2012). "Between classification, objectification, and perception: processing secondhand clothing for recycling and reuse". *Textile,* 10(2), pp. 164-183.

Brown, L. E. (1976). "Specialty shopping-centers - The new trend in retailing". *The Appraisal Journal,* 44(2), p. 226.

Carlson, H. J. (1991). "The role of the shopping centre in US retailing". *International Journal of Retail & Distribution Management,* 19(6), p. 13. DOI: 10.1108/EUM0000000002951

Castellani, V., Sala, S. & Mirabella, N. (2015). "Beyond the throwaway society: A life cycle-based assessment of the environmental benefit of reuse". *Integrated Environmental Assessment and Management,* 11(3), pp. 373-382. DOI: 10.1002/ieam.1614

Chan, T.-y. & Wong, C. W. Y. (2012). "The consumption side of sustainable fashion supply chain". *Journal of Fashion Marketing and Management: An International Journal,* 16(2), pp. 193-215. DOI: 10.1108/13612021211222824

Csaba, F. F. & Askegaard, S. (1999). "Malls and the Orchestration of the Shopping Experience In a Historical Perspective". *Advances in Consumer Research,* 26(1).

Das, D. & Dutta, P. (2015). "Design and analysis of a closed-loop supply chain in presence of promotional offer". *International Journal of Production Research,* 53(1), pp. 141-165.

Dervojeda, K., Verzijl, D., Rouwmaat, E., Probst, L. & Frideres, L. (2014). "Clean technologies circular supply chains". *EU report*, pp. 248-274.

Ekström, K. M. & Salomonson, N. (2014). "Reuse and Recycling of Clothing and Textiles—A Network Approach". *Journal of Macromarketing,* 34(3), pp. 383-399.

Erkip, F. (2005). "The rise of the shopping mall in Turkey: the use and appeal of a mall in Ankara". *Cities,* 22(2), pp. 89-108. DOI: 10.1016/j.cities.2004.10.001

Farrant, L., Olsen, S. I. & Wangel, A. (2010). "Environmental benefits from reusing clothes". *The International Journal of Life Cycle Assessment,* 15(7), pp. 726-736.

Gelbmann, U. & Hammerl, B. (2015). "Integrative re-use systems as innovative business models for devising sustainable product–service-systems". *Journal of Cleaner Production,* 97, pp. 50-60. DOI: 10.1016/j.jclepro.2014.01.104

Ghosh, A. & McLafferty, S. (1991). "The shopping center: a restructuring of post-war retailing". *Journal of Retailing,* 67(3), pp. 253-268.

Goldsmith, D. (2012). "The Worn, the torn, the wearable: Textile recycling in union square". *Nordic Textile Journal,* 1, pp. 16-29.

Goss, J. (1993). "The "magic of the mall": an analysis of form, function, and meaning in the contemporary retail built environment". *Annals of the Association of American Geographers,* 83(1), pp. 18-47.

Gustafsson, E., Hjelmgren, D. & Czarniawska, B. (2015). "Cloth Loop: An attempt to construct an actor-network". In*: Ekström, K. M. (ed.) *Waste Management and Sustainable Consumption: Reflections on consumer waste.* Routledge.

Ha-Brookshire, J. E. & Hodges, N. N. (2009). "Socially Responsible Consumer Behavior?: Exploring Used Clothing Donation Behavior". *Clothing and Textiles Research Journal,* 27(3), pp. 179-196.

Hawley, J. M. (2006). "Digging for Diamonds: A Conceptual Framework for Understanding Reclaimed Textile Products". *Clothing and Textiles Research Journal,* 24(3), pp. 262-275. DOI: 10.1177/0887302x06294626

Howard, E. (1997). "The management of shopping centres: conflict or collaboration?". *The International Review of Retail, Distribution and Consumer Research,* 7(3), pp. 263-285.

Howard, E. (2007). "New shopping centres: is leisure the answer?". *International Journal of Retail & Distribution Management,* 35(8), pp. 661-672.

Jayaraman, V., Ross, A. D. & Agarwal, A. (2008). "Role of information technology and collaboration in reverse logistics supply chains". *International Journal of Logistics: Research and Applications,* 11(6), pp. 409-425.

Kant Hvass, K. (2016). *Weaving a Path from Waste to Value.* Diss. Copenhagen Business School [Phd].

Kirkup, M. & Rafiq, M. (1994). "Managing tenant mix in new shopping centres". *International Journal of Retail & Distribution Management,* 22(6), pp. 29-37.

LeHew, M. L. A. & Fairhurst, A. E. (2000). "US shopping mall attributes: an exploratory investigation of their relationship to retail productivity". *International Journal of Retail & Distribution Management,* 28(6), pp. 261-279. DOI: 10.1108/09590550010328535

Mejia, L. C. & Benjamin, J. D. (2002). "What do we know about the determinants of shopping center sales? Spatial vs. non-spatial factors". *Journal of Real Estate Literature,* 10(1), p. 3.

Mertes, J. E. (1949). "The Shopping Center: A New Trend in Retailing". *Journal of Marketing,* 13(3), pp. 374-379.

Min, H., Ko, C. S. & Ko, H. J. (2006). "The spatial and temporal consolidation of returned products in a closed-loop supply chain network". *Computers & Industrial Engineering,* 51(2), pp. 309-320.

Min, H. & Ko, H.-J. (2008). "The dynamic design of a reverse logistics network from the perspective of third-party logistics service providers". *International Journal of Production Economics,* 113(1), pp. 176-192.

Moise, M. (2008). "The importance of reverse logistics for retail activity". *The Amfiteatru Economic journal,* 10(24), pp. 192-209.

Morgan, L. R. & Birtwistle, G. (2009). "An investigation of young fashion consumers' disposal habits". *International journal of consumer studies,* 33(2), pp. 190-198.

Morley, N., Bartlett, C. & McGill, I. (2009). "Maximising reuse and recycling of UK clothing and textiles: A report to the department for environment, Food and rural affairs". *Oakdene Hollins Ltd*.

Ng, C. F. (2003). "Satisfying shoppers' psychological needs: From public market to cyber-mall". *Journal of Environmental Psychology,* 23(4), pp. 439-455. DOI: 10.1016/S0272-4944(02)00102-0

O'Reilly, S. & Kumar, A. (2016). "Closing the loop: An exploratory study of reverse ready-made garment supply chains in Delhi NCR". *The International Journal of Logistics Management,* 27(2), pp. 486-510.

Ooi, J. T. L. & Sim, L.-L. (2007). "The magnetism of suburban shopping centers: do size and Cineplex matter?". *Journal of Property Investment & Finance,* 25(2), pp. 111-135. DOI: 10.1108/14635780710733816

Pitt, M. & Musa, Z. N. (2009). "Towards defining shopping centres and their management systems". *Journal of Retail and Leisure Property,* 8(1), pp. 39-55. DOI: 10.1057/rlp.2008.25

Rogers, D. S. & Tibben-Lembke, R. (2001). "An examination of reverse logistics practices". *Journal of Business Logistics,* 22(2), pp. 129-148. DOI: 10.1002/j.2158-1592.2001.tb00007.x

Russell, S. J., Morley, N., Tipper, M. J., Drivas, I. & Ward, G. D. (2010). "Principles of the recovery and reuse of corporate clothing". *Proceedings of the Institution of Civil Engineers-Waste and Resource Management*. Thomas Telford Ltd, pp. 165-172.

Salcedo, R. (2003). "When the global meets the local at the mall". *American Behavioral Scientist,* 46(8), pp. 1084-1103.

Simona Damian, D., Dias Curto, J. & Castro Pinto, J. (2011). "The impact of anchor stores on the performance of shopping centres: the case of Sonae Sierra". *International Journal of Retail & Distribution Management,* 39(6), pp. 456-475. DOI: 10.1108/09590551111137994

Singh, H. & Bose, S. (2008). "My American Cousin: A Comparison Between Indian and the US Malls". *Journal of Asia-Pacific Business,* 9(4), pp. 358-372.

Tan, T.-H. (2015). "Assessing the significance of environmentally friendly mall from Malaysian mall visitors' perspective". *Pacific Rim Property Research Journal,* 21(3), pp. 275-290.

Terblanche, N. S. (1999). "The perceived benefits derived from visits to a super regional shopping centre: an exploratory study". *South African Journal of Business Management,* 30(4).

Tibben-Lembke, R. S. & Rogers, D. S. (2002). "Differences between forward and reverse logistics in a retail environment". *Supply Chain Management: An International Journal,* 7(5), pp. 271-282.

Tojo, N., Kogg, B., Kiørboe, N., Kjær, B. & Aalto, K. (2012). "*Prevention of Textile Waste - Material flows of textiles in three Nordic countries and suggestions on policy instruments*" (TemaNord 2012:545). Copenhagen.

Wakefield, K. L. & Baker, J. (1998). "Excitement at the mall: determinants and effects on shopping response". *Journal of retailing,* 74(4), pp. 515-539.

Woolridge, A. C., Ward, G. D., Phillips, P. S., Collins, M. & Gandy, S. (2006). "Life cycle assessment for reuse/recycling of donated waste textiles compared to use of virgin material: An UK energy saving perspective". *Resources, Conservation & Recycling,* 46(1), pp. 94-103. DOI: 10.1016/j.resconrec.2005.06.006

Yiu, C.-y. & Yau, Y. (2006). "An ecological framework for the strategic positioning of a shopping mall". *Journal of Retail & Leisure Property,* 5(4), pp. 270-280. DOI: 10.1057/palgrave.rlp.5100037

Zhao, J., Liu, W. & Wei, J. (2013). "Pricing and remanufacturing decisions of a decentralized fuzzy supply chain". *Discrete Dynamics in Nature and Society,* 2013.