

Luxury brands and their role in eco-innovation diffusion

Eleanor Snare

University of Leeds

e.b.snare@leeds.ac.uk

Mark Sumner

University of Leeds

Abstract

Purpose: The purpose of this research is to understand the role of luxury brands in the diffusion of eco-innovations through the fashion industry, and whether the trickle-down theory applies.

Methodology: Structured qualitative interviews were carried out with 13 individuals working in luxury, mass and value market fashion brands to understand the perceptions of how innovation and eco-innovation were generated and diffused through the fashion industry. Rogers' theory of innovation diffusion was used to analyse and explore interview responses.

Findings: The results of the research suggest the interviewees perceived the trickle-down effect as less relevant for eco-innovations than for aesthetic innovations (newness in style, design or colour). It was found that suppliers, competitors and senior management play a more important role in diffusion of eco-innovation. A five point model for successful eco-innovation diffusion within a fashion business was established from the research.

Limitations: As the first stage of a larger project, this research focused on one interviewee from the product design and development team within each brand. Further research will be carried out to explore the perceptions of eco-innovations for other functions within the brands.

Implications: Fashion brands wishing to adopt eco-innovations can use the five point model to help them establish the right conditions for successful adoption within their business.

Originality/value: This research extends existing work on the adoption of sustainability within the fashion industry by exploring the adoption routes for eco-innovation and using Rogers' framework to create a five point model for innovation.

Keywords

Innovation diffusion, sustainability, mass market, luxury, trickle-down

Classification

Research paper

Introduction

This paper, the first of a series of investigations into sustainability and innovation in the fashion industry, aims to explore the role that luxury brands play in the development of new ‘eco-innovations’ for the industry and the adoption processes of eco-innovations across the industry.

The globalised fashion clothing industry is worth in excess of \$1.5 trillion per year and employs more than 250 million people across the supply chain, from cotton farms and fibre spinning to fabric mills and garment factories. Associated with this trade are well-documented negative sustainability impacts on the environment and the communities linked to the supply chain. The consumption of energy, the use of highly toxic chemicals and degradation of water courses throughout the supply chain are just some of the environmental impacts associated with the industry. Poor pay, gender inequality, forced labour, and poor health and safety compliance are some of the social problems the industry faces. With the increasing popularity of fast fashion with mass market consumers, material consumption and waste (post-consumer waste in particular) is accentuating the sustainability issues the industry is facing (Allwood et al., 2006; Madsen et al., 2007; Kim and Kozar, 2012; Kim and Kozar, 2013; Moon et al., 2015).

To minimise these impacts and attain a restorative position for the industry, a change of mindset is required; radical innovations in technology, design and consumer understanding are needed (Niinimäki and Hassi, 2011). In a complex, disjointed and globalised industry, the need for innovation at a strategic level to instigate change is becoming more and more apparent (Niinimäki and Hassi, 2011; Kozlowski et al., 2012).

Innovation has been extensively studied as a subject area and is recognised as an important tool for business development and growth. Rogers’ theory of innovation diffusion established in 1962 has been well used to describe how innovations are created and adopted across industries and organisations. Within the field of fashion and clothing, innovation has also been closely studied. Much of this work has shown the importance of haute couture and luxury brands for the development and adoption of innovation through the industry via the trickle-down effect, where they provide direction and inspiration for mass market brands and retailers.

As luxury brands have historically held a position of leadership and direction for the industry regarding style and trend innovation, the question is whether they can also become leaders in the drive for eco-innovation and a more sustainable fashion industry (Annamma et al., 2012). It is clear that a number of luxury brands are making progress in the development of eco-fashion through the application of innovation at different levels in the industry, including material development, product and process innovation, and new models for service and business. But are the eco-innovations of the luxury sector being adopted in the same way as the ‘traditional’ innovations of trend and style through the trickle-down effect?

Literature review

Innovation and eco-innovation

Innovation is an intellectual process, requiring a mix of business acumen, creative behaviour, and design-led operating to capitalise on ideas and link them to user needs and business opportunities. Innovation results in the commercial exploitation of ideas through new products, services, or processes. Although innovation logically requires the creation of new ideas, specifically it requires the application, implementation, and exploitation of these to deliver an intended business result; attracting new customers, penetrating new markets, or achieving greater margins or competitive advantage.

Traditional market-led innovation (those based on driving sales, profit, market share and more) evolves from the knowledge and experiences of a relatively small group of stakeholders who tend to be associated with each other and have established connectivity (Hall and Vredenburg, 2003). The resulting innovations from the interactions between these stakeholders can be categorised in three types: incremental, radical and disruptive innovation.

Eco-innovation can be described as innovation which has this business-improvement focus, plus a specific objective to minimise sustainability impacts. The complexity and interconnectedness of the multitude of issues for sustainability in the business context requires a much wider and more diverse group of stakeholders to be involved in the innovation process for it to be truly successful (Hall, 2003).

As a result of this diversity of stakeholders, who may often hold contradictory positions on issues for business, the environment and ethics, eco-innovation is more complex than standard market driven innovation (Ayuso, 2012). The need to engage with the usual innovation agents such as employees, consumers and suppliers – as well as understanding and establishing links with non-governmental organisations (NGO), local and global communities, governments and even competitors – increases the complexity of eco-innovation relative to market-led innovation (Ayuso, 2012).

Luxury and mass market

The fashion industry comprises different and complex market levels. A key division in the study of the fashion industry is between mass market and luxury market fashion.

The luxury market originated with the ateliers of couture designers and the history of bespoke apparel; it “evolved from the desire for luxury and conspicuous consumption from the elite strata of society” (Easey, 1995, p. 117). This market services a smaller, but more affluent, number of consumers than other market levels. Reputation, exclusivity and high cost are commonly associated with the luxury market (Easey, 1995) and it’s characterised by high quality production methods and materials, often making limited numbers of fashion products.

The mass market relies on mass production of fashion products and apparel, unlike the limited or small-scale production of the luxury market. Prices are significantly lower with a larger (and broader) consumer base. Accessibility and low cost are commonly associated with mass market fashion. It is

“the market in which most people buy their clothes” (Easey, 1995, p. 16), with “the widest distribution base because they appeal to a large number of consumers” (Mueller, 1995, p. 26) and could specifically be high-street retailers available in major towns, cities and internationally (Posner, 2011).

The mass market makes up a vast percentage of the total fashion industry – around 97% (Schmidt, 2015). Despite this it’s argued that “mass fashion imitates and revises the trends started with high fashion” (Mueller, 1995, p. 26), and its function is “to select and adapt appropriate couture design to meet the needs of the public at large” (Easey, 1995, p. 117). Trickle-down theory and the exclusive desirability of luxury fashion have contributed to the perception of the mass market as an adopter, not a creator, of innovations.

Divisions between market levels are becoming increasingly blurred and the “demarcation” (Posner, 2011, p. 15) is no longer as clear. Customers now can and often do buy from multiple market levels (Easey, 1995). The development of more affordable diffusion ranges by luxury fashion brands has also contributed to these blurred boundaries.

A relatively recent development in fashion markets is the value market sector. Although very similar to mass market, the value market specifically trades on price and often uses business processes designed to lower costs internally and for the consumer; for example, high volume purchasing and limited stock storage.

Trickle-down effect

The trickle-down theory of fashion product distribution was originally set out by Veblen (1899) and developed by Simmel (1971). Members of a socio-economic group of lower perceived status adopt the fashion products of a socio-economic group of higher perceived status in an attempt to imitate them (and their status) or achieve social mobility. When the fashion product has been successfully adopted, innovation occurs in the ‘higher’ group through a renewed wish to differentiate themselves. The most visible example is the diffusion of haute couture concepts for mass and value markets in the modern-day fashion industry.

Trickle-up and trickle-across theories of fashion product distribution have been developed from the original theory. Trickle-up theory posits fashion innovations arise in the ‘lowest’ consumer groups and are sanitised and made luxurious for the ‘highest’ and most affluent consumer groups in a quest for innovative fashion products. Trickle-across theory identifies the influence of innovators within specific socio-economic groups on successfully diffusing innovation through that consumer group, rather than between levels.

While the fashion industry has changed considerably since the trickle-down theory was first set out, it can be argued the theory is still relevant and applicable. For example, ‘copycat’ versions of luxury and haute couture fashion items which are sold in mass market fashion brands could be seen as evidence of the trickle-down theory. Our research seeks to understand whether fashion eco-innovations are

developed and diffused through the trickle-down effect, or whether another theoretical model is more relevant.

Innovation diffusion

In this research, we use Rogers' theory of innovation diffusion to help understand and explain the ways in which fashion innovations are adopted and spread through the fashion industry. The diffusion of innovation is when an innovation – anything “perceived as new” (Rogers, 2003, p. 36) – is communicated through particular channels over time by members of a social system. This leads to the adoption or rejection of the innovation. Rogers' work helped establish a clear model for innovation adoption which has been recognised and used by a wide variety of industries seeking a way to predict the potential success of innovations. Most recognisable to those in the fashion industry are his five categories of entities (either individuals or groups of individuals, or organisations) determined by their level of innovativeness: innovators, early adopters, the early majority, the late majority and laggards. Each has a role in the diffusion and adoption of innovations within a social system, and have specific characteristics and values; venturesomeness, respect, deliberate, scepticism and traditionalism (Rogers, 2003, pp. 282-285). However, Rogers claims innovativeness “is a continuous variable” (2003, p. 282) and therefore distinction between categories can be blurred.

Rogers puts the diffusion of innovation within a social system, defined as “a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal” (2003, p. 37). For the purposes of this research, the fashion industry is the social system, which consists of brands, retailers, manufacturers, suppliers and consumers.

The social system's structure, or controlled behaviours, contributes positively or negatively to the diffusion and adoption of innovations. Other contributing factors are norms – “established behaviour patterns” (2003, p. 282) of the system's units – and consequences of adopting the innovation. There are also three more contributing elements in the form of ‘personas’ (2003, pp. 37-38):

- Opinion leadership – an entity with informal influence over others e.g. a luxury brand influencing mass market brands, according to trickle-down theory
- Change agent – an entity with formal influence over others driven by an agency's desired outcome e.g. government
- Aide – an entity who has regular contact with others in an attempt to influence e.g. consumer pressure consumer panel

Methodology

The methodology for this research consists of structured interviews with 13 individuals working for selected value, mass market and luxury fashion brands based in the UK and Europe. The interviews

consisted of twenty predominantly qualitative questions. Qualifying questions were asked where appropriate to explore and clarify responses. These interviews were designed to gain first hand insight into the development and diffusion of innovations and eco-innovations within a fashion business and the fashion industry. Brands were selected for their scale (in mass market) or their visibility (in luxury market). The combined disclosed turnover in clothing and fashion-related products for the interviewee brands is in excess of £11 billion, demonstrating the scale at which they are operating and their contribution to the fashion industry. Responses have been anonymised, including direct quotations.

The interviews attempted to understand the influence of external factors on the development and diffusion of innovation, including consumers, stakeholders, other market sectors and the relevancy of the trickle-down effect. Questions were designed to extract opinions on market-led innovation for fashion and the importance of innovation for an organisation, where the scope of innovation was broadly defined as encompassing product, process, service, business model and operations. Interviewees were allowed to define innovation for their brand and its importance, the latter question using quantitative measures. Inspiration for innovation within the brand was explored, as were perceptions of leading innovators for the fashion industry. The process was then repeated for eco-innovation, starting with interviewees' definitions of eco-innovation. This approach was used to clearly compare and contrast the perceptions of market-led innovation and diffusion with the perceptions of eco-innovation and diffusion. The interviews were analysed to identify common themes, similarities and differences between individual brands and between brands from different sectors on these subjects.

Discussion

Interviews were conducted with 13 individuals from middle management and above working in established fashion brands: two luxury brands, three high-end mass market brands, five middle-market mass market brands, one brand from the value market and one supermarket. The largest disclosed turnover was £4.1 billion, and the lowest £72 million. The largest number of disclosed annual individual product styles was 75,000, and the smallest was 32,000.

What is eco-innovation?

Sustainability is a complex, broad area of research, and from preliminary reading it was clear there was no agreed definition for 'eco-innovation'. To understand how fashion brands perceived eco-innovation – and therefore their focus of innovation in the area of sustainability – interviewees were asked for their personal definition of the term.

The majority (nine interviewees) said eco-innovation was related to environmental factors, not ethical factors. Examples of definitions are “anything that gets us to a better place in terms of our environmental impact...things we can ultimately measure” [1] and “techniques or processes that lessen the impact of a product”.

Those interviewees who said it also included ethical factors defined eco-innovation in a much broader way. One interviewee argued that eco-innovation didn't sound like a holistic term, but it should be perceived as one. Definitions were:

“An innovation which delivers a sustainable benefit”

“Transforming the apparel sector so that the people who are touched [by it] are all benefitting”

“In previous times it would've meant solely environmental...in future times, it's increasingly going to mean the [full breadth of sustainability]”

These responses suggest that fashion brands are most likely to see eco-innovation within the context of environmental sustainability and as a method of delivering improved environmental impacts.

Recognising innovation and eco-innovation

Interviewees were asked to rate their brands out of 10 for the importance of innovation to the organisation. The mode rating was eight, but values ranged from 4/10 to 10/10. They were also asked to rate the importance of eco-innovation to the organisation. The mode rating was seven, with the lowest score being 2/10 and the highest 10/10.

Of those interviewees who rated the importance of eco-innovation to their organisation, only three said it was more important than innovation in general. Two others rated innovation and eco-innovation of equal importance, while the remaining six said it was less important by a mean of 1.5.

The high mode rating of the responses suggest market-led innovation is considered highly important to fashion businesses, although the range suggests perceived importance of innovation can be significantly different across fashion businesses. In our interviewees' businesses, the lower mode rating and majority opinion of interviewees suggests eco-innovation is considered slightly less important than innovation. Significantly, the greater range of ratings suggests the perceived importance of eco-innovation can be radically different across different fashion businesses.

The luxury brand interviewees rated the importance of innovation at 8/10 (the mode rating and among the highest in the range), but the importance of eco-innovation was mixed. This suggests innovation is generally more important to luxury fashion brands than mass market brands, but eco-innovation is still regarded as varying in importance.

Inspiration for innovation

Interviewees were asked where the inspiration for innovation in their business came from, with a view to establishing the sources of innovation for the fashion industry. Suppliers and supply chain partners were mentioned most frequently (by nine interviewees), followed by competitors (including competitor analysis and benchmarking) from six interviewees. The least frequently mentioned sources

were catwalk and couture brands (three interviewees), and ‘top down’ management (two interviewees). One interviewee said that luxury brands are “still a key source of inspiration...that’s probably not moved on enough from our side”, suggesting that luxury brands were seen as a more ‘traditional’ source of inspiration which may not be as relevant now. When asked about the inspiration for a specific innovation in their business, nearly all of the interviewees mentioned internal teams, often collaborative across departments, and suppliers – either through relationships or through suppliers approaching their brand with new materials, products or technologies.

Interviewees also described the inspiration for eco-innovation within their business. ‘Top down’ inspiration from senior management (CEO or owners) was the most important inspiration, followed by internal teams, then suppliers and competitors both mentioned equally. However, interviewees also mentioned other sources of inspiration including cut-through from other brand campaigns, environmental legislation and external speakers.

Eco-innovation in fashion businesses

Interviewees were also asked to name a key eco-innovation for their business and its inspiration. Three interviewees were unable to provide an example of a recent eco-innovation in their business, suggesting the rate of market-led innovation is greater than eco-innovation for these brands. Of the remainder the majority of responses mentioned material, material processing or chemical management innovations. Less frequently mentioned were technology-based and ‘paradigmatic’ innovations; those innovations for a radically different business model.

Interviewees who explained what inspired this innovation were most likely to mention ‘top down’ drive. They also mentioned what other brands were doing – either direct competitors or brands with visible eco-innovations. For example, one interviewee who identified sustainable denim as a recent eco-innovation in their business said inspiration came directly from G-Star and Levi sustainable denim campaigns, as well as their supply chain. Internal inspiration, suppliers, external forces and legislation were all mentioned as inspiring eco-innovations in the organisation.

Innovators in the fashion industry

Interviewees were asked which fashion brands they considered innovators and eco-innovators in the sector. Twenty-three separate brands were mentioned by respondents as ‘leading innovators in the sector’, with Nike having the most mentions (seven interviewees) followed by M&S (five interviewees) and Patagonia and H&M (with four interviewees each). Interviewees were explicitly asked if innovations were seen to trickle-down from luxury brands and only one luxury brand, Burberry, was mentioned by the interviewees.

For ‘leading eco-innovators in the sector’, twenty separate brands were mentioned. The most mentioned brand was Patagonia (nine interviewees) followed by Nike (five interviewees) and M&S,

H&M and G-Star (with four interviewees each). Two luxury brands were mentioned as being 'leading eco-innovators' in the sector: Burberry and Kering.

It is interesting to note those brands most likely to be considered an innovator were also very likely to be considered an eco-innovator (such as Nike, M&S, Patagonia and H&M). One interviewee put forward that "if the companies are already doing good innovation stuff, they're also doing eco-innovation" as they're more likely to have an existing innovation framework which can be tuned for eco-innovation, while another argued that now, "sustainability and innovation are almost self-fulfilling...they're almost driving one another". Luxury brands were not generally seen as leading innovators or eco-innovators in the sector.

Leaders in the industry

To understand whether those brands considered innovators were also the brands driving the sustainability agenda for the industry, interviewees were asked who they believed to be leading the way for greater sustainability in the fashion industry.

Twelve separate brands were mentioned as leading the way for greater sustainability. Of the twelve brands, H&M and M&S both received mentions from five interviewees, followed by G-Star (three interviewees) and Nike and Ikea (two interviewees each). Patagonia, mentioned by nine interviewees as a leading eco-innovator, was only mentioned by one interviewee as a leading the way for greater sustainability in the industry. Two other entities were mentioned, once each, by other interviewees: the media, and collaboration between businesses. There were no mentions of NGOs, charities or other organisations campaigning for greater sustainability, although initiatives linked to these organisations were mentioned when interviewees were asked what they saw as the greatest contemporary eco-innovation in the sector.

These responses suggest fashion brands are more likely to look to other fashion brands to lead the way in industry-wide sustainability, rather than external entities. In particular, those brands operating in the mass market were seen as leading the way, especially those who had positioned themselves as doing so. For example, interviewees identified that H&M was perceived as leading the way partly because they are the "loudest and proudest...because they're such a well-known brand...you have to at least be doing what H&M are doing", despite the reality being that they may "look good on paper" (but not in practice).

What sets innovators and eco-innovators apart?

When asked what sets innovators in the sector apart from other brands, interviewees gave a range of reasons, including "stable products" which could be innovated around more easily through long-term supplier relationships; dedication to product quality; and flexibility with resource and margins which could be dedicated or 'given over' to innovation. One interviewee suggested that privately-owned brands have more opportunities to innovate due to this financial and resource

flexibility, while another said “it’s all about the amount of money and resource that’s thrown at it”. However, it should be noted it’s the willingness to dedicate resource and finances and take risks which is important in setting innovators apart – “a desire for the rash, the daring, and the risky”, in Rogers’ words (2003, p. 283) – rather than the existence of resource and finance.

A focused and dedicated internal culture was mentioned as something which also sets innovators apart from other brands: “[innovative brands are] all very clear about their role...they have a really good focus at executing that and therefore innovating around it” and “[innovation is] a philosophy that’s ingrained into the business”. Successful marketing was also identified as something which set innovators apart:

“I think the way they illustrate what they’ve achieved [in innovation] sets them apart...that’s how I know about it...through the way they’ve marketed it...the messaging and the way they link what they’ve innovated [to the brand] is sometimes absolutely genius.”

“[These brands are] really innovative and really good at marketing their innovations...supported by impactful sophisticated marketing and PR so it’s wrapped up and presented in a really...eye-catching way.”

These responses suggest there are number of elements which enable a fashion brand to be seen as an innovator, including internal culture, freedom of resource, stability of product lines and the successful marketing of a brand as an innovator.

When interviewees were asked what set the leading eco-innovators apart from other brands, there was strong alignment with the characteristics of innovation. Scalability, material innovation and consumer interest were also mentioned, but the most frequently mention characteristic was that eco-innovation – or sustainability in general – was at the heart of the business model:

“[They have an] openness and desire to change materials or production”

“They’re making it who they are”

“It’s in the heart of the guys who are making these businesses”

“It’s a huge part of their ethos...I really believe what they’re doing is true”

“It looks like it’s an integral part of their culture...their product, tone of voice...you just know they’ve considered everyone”

“It’s at the essence of what they do and the way they portray and convey that message is really compelling”

These responses suggest that while there are similarities between what sets an innovator and eco-innovator brand apart, to be an eco-innovator brand a strong sustainability-focused internal culture is also required.

Consumer value of innovation and eco-innovation

The interviewees from luxury brands identified that innovation had a strong value for their consumers either independently or as part of the brand ‘package’. All other interviewees said consumers were interested in the benefits of innovation – such as improved speed, price or quality – but not innovation in itself. Alternatively, they said consumers weren’t interested in innovation at all. Interviewees also distinguished between ‘newness’ and innovation from a consumer perspective. Nearly all interviewees indicated consumers considered style, price or product quality more important than innovation, even when they were genuinely interested in innovation (in the case of luxury brand consumers).

In general, interviewees perceived eco-innovation of a low value to consumers, but saw there was an emerging interest among some consumers. Interviewees suggested the complexity and communication of eco-innovation was a barrier to interest for consumers.

These responses suggest fashion brands perceive their consumers as only being interested in innovation when it has a direct benefit to them, and that they are disinterested in eco-innovation. They also perceive consumers as more likely to be interested in newness or ‘aesthetic innovation’ than either innovation or eco-innovation; one interviewee from a mass market brand said “ultimately they [the consumer] are going to buy the product because it’s beautiful...not because it’s got some special [eco] feature”. However, some interviewees identified there was emerging interest in eco-innovation from their consumers. The luxury brands interviewed were more likely to identify their consumers as being interested in innovation and eco-innovation than mass market or value brands, although interest in eco-innovation was part of a larger brand ‘package’.

Stakeholder value of innovation and eco-innovation

Interviewees were asked to describe the value of innovation and eco-innovation to the stakeholders of their brands. Although there was a mean score of 7/10 for the importance of innovation to these fashion businesses, the value of innovation for their stakeholders was often not placed as highly as other operational requirements, such as profitability or efficiency. Interviewees mentioned that innovation for competitive advantage had a greater value for stakeholders than innovation ‘for innovation’s sake’, and that ‘top down’ support for innovation could be constrained by financial KPIs. The interviewees from luxury brands said innovation was highly valued by stakeholders, particularly for its role in competitive and commercial advantages.

Despite the importance of eco-innovation to the business being rated as only slightly lower than innovation, the value of eco-innovation to stakeholders was generally considered fairly low. Interviewees mentioned that economic pressures and priorities influenced the value of eco-innovation, because it doesn’t necessarily have an immediate bottom line impact: one interviewee said “[I’ve] got to get [the stakeholders’] eyes off brand and trading...and get them to look at the bigger picture” while

another argued “[It’s] difficult to be taken seriously because you’re not seen as making money”. KPIs based on financial targets and poor profits were also mentioned as reasons why stakeholders didn’t value eco-innovation highly. One interviewee pinpointed the lack of competitive advantage eco-innovation has for a fashion business as a reason for low stakeholder value, especially compared to the highly competitive, innovative food sector. Even with ‘top down’ support, one interviewee felt stakeholders didn’t value it as highly as they could: “by not integrating all of your risky sustainability work into your core business, that’s a signal...that it’s not core to their business”.

The luxury brand interviewees said stakeholders already valued eco-innovation highly, or were increasingly doing so. One luxury brand interviewee mentioned investors and fund managers were now asking more questions and requesting more detailed information about sustainability and eco-innovation than ever before.

These responses suggest innovation can be perceived as very important to a fashion business by its members, but that realisation of this can be constrained by financial and operational priorities defined by accountable stakeholders. Eco-innovation can be perceived as relatively important to a fashion business by its members, but realisation is particularly difficult due to the low value stakeholders and consumers place on it. The responses suggest a key reason for this is the lack of demonstrable or immediate financial or competitive advantage. Luxury brands are more likely to perceive their stakeholders as highly valuing innovation and eco-innovation, or at least beginning to value eco-innovation more highly.

Findings

Our interviewees identified that luxury fashion brands and the catwalk inspired ‘newness’ which trickled down to the mass market, often in style, trend, colour or material. However, they distinguished this from true innovation and were more likely to look to suppliers or competitors in the mass market for inspiration for this type of innovation. Therefore, the trickle-down effect still seems to have some relevance and application as a model for the diffusion of innovations, but only for those ‘surface’ or aesthetic innovations such as style and colour, rather than more radical material, product or business model innovations.

For eco-innovation the model appears to be quite different. The diffusion of eco-innovation can instead be described as a trickle sideways model where entities in one market sector are influenced by others in that sector, as competitors were identified as key sources of eco-innovation. An eco-innovator in their market sector is potentially more likely to influence a fashion brand’s activity than an eco-innovator from another market sector. This follows Rogers’ model of innovation diffusion; early adopters, such as Nike, H&M and M&S, enable other fashion businesses in ‘later’ adopter categories to take up eco-innovations, thus the eco-innovation is diffused across the sector. Importantly interviewees identified ‘top down’ support as an essential component for the successful adoption of

eco-innovation; therefore, an early adopter might be a senior manager in a fashion brand who enables other individuals in the brand to adopt an eco-innovation.

Explaining the diffusion of eco-innovation in this way suggests peer-to-peer networks and sustainability-focused business leaders are both important for the successful diffusion of eco-innovation through the whole industry because they act as early adopters and enable others to take up a particular eco-innovation.

Although they are recognised as ‘innovative’ or inspiring innovation, competitors and business leaders can be seen as early adopters, rather than innovators, in Rogers categorisation. Innovativeness is a “continuous scale” where adopter categories are likely to bleed into each other; so depending on the individual fashion business and their innovation work, they could be seen as an innovator or an early adopter. Early adopters “[have] the highest degree of opinion leadership...[are] a role model for many other members of a social system...[and] help trigger the critical mass [of adoption]” (Rogers, 2003, p.283). Importantly, this category “decreases uncertainty about a new idea by adopting it, and then conveying a subjective evaluation of the innovation to near peers through interpersonal networks” (2003, p.283). Innovators introduce a new idea into a system, while early adopters use it successfully and tell people about it. Depending on their individual innovation work, some ‘innovative’ brands could do either or both of these things.

In mass market fashion brands, where innovation is perceived as important yet financial priorities may prevent its realisation, being able to see an eco-innovation in practice reduces risk and increases likelihood of adoption. This could explain why Nike and Patagonia, who were frequently mentioned as leading eco-innovators, were mentioned less frequently by our interviewees when asked who is leading the way for greater sustainability in the industry. H&M and M&S, both mass market brands, were mentioned most frequently in response to this question. These businesses are “near peers” for mass market brands who operate in similar ways, and therefore their successful adoption of an eco-innovation means others able to see it working in practice and are therefore more likely to adopt it.

A particularly challenging area of understanding how eco-innovation diffuses through the fashion industry is identifying who is in the innovator category. Interviewees most frequently mentioned suppliers as inspiring innovation in general, who would approach brands with a new idea for them to accept or reject it. In this way, suppliers embody Rogers’ innovator category, who have: “the ability to understand and apply complex technical knowledge...venturesomeness...willing[ness] to accept an occasional setback...[and import] the innovation from outside of the system’s boundaries” (2003, pp.282-283). However, some individual fashion businesses could also be considered innovators according to these characteristics. Individual fashion businesses may also bring the ‘challenge’ of eco-innovation to suppliers, who then respond by developing a specific innovation which can be used by one (or many) brands. In this sense, the ‘challenge’ is just as innovative as the solution, so establishing who is the innovator and who the early adopter – and therefore what the next steps of eco-innovation diffusion are – is complex.

Similarly, with eco-innovation, a more diverse range of inspirational sources was mentioned by interviewees than those which inspired innovation in general. For example, legislation, university research partners, material scientists and “adjacent industries” which link to the fashion industry in some way were all mentioned as sources of inspiration for eco-innovation. This reinforces the importance of wide-ranging research to inform true innovation within a sector, but also makes understanding the origins and diffusion of eco-innovation more complex. In turn, it becomes more difficult for those wishing to provide funds, resource or networks to eco-innovators to help them approach potential early adopters.

However, this difficulty could be circumvented. Our interviewees were most likely to identify an eco-innovation as one involving material or material processing to improve environmental impact. As this area is one in which suppliers (such as cotton farmers or dye-houses) are essential, and suppliers are frequently mentioned as a source for innovation in general, eco-innovation could be more effectively diffused through the fashion industry by encouraging suppliers to take up innovations specifically around sustainability. Similarly, by identifying those specific fashion brands who are acting as innovators and challenging suppliers to generate eco-innovations, their role could be emphasised in diffusing eco-innovations through the industry. As innovators who “play a gatekeeping role in the flow of new ideas into a system” (Rogers, 2003, p.283), these entities can introduce these new ideas to early adopter mass market brands who are then able to influence “near peers” and diffuse the innovation. For NGOs, legislators, material scientists and others researching, suggesting or promoting eco-innovation, these innovator/early adopter entities could be key to industry adoption.

As a result of this research, a five point model was identified for the conditions of successful eco-innovation: ‘top down’ support; sustainability-focused internal culture; a framework for innovation; scalability; and visibility. This model is grounded in Rogers’ innovation diffusion theory.

First, **‘top down’ support** is the degree of opinion leadership exerted by individuals higher up in the business. If the opinion leadership of senior stakeholders is strong enough, eco-innovation can be encouraged; if it isn’t, less senior management could ‘push back’, as mentioned by one interviewee.

Second, a **sustainability-focused internal culture** is the “common goal” of the social system which informs all other activities, around which its members can take part in “joint problem-solving” (Rogers, 2003, p.37). Interviewees said brands identified as leading eco-innovators were perceived as having this as “a huge part of their ethos” or “making it who they are”.

Third, a **framework for innovation** is the structure and norms of the social system: the regulated behaviour and behaviour patterns within a social system or business (Rogers, 2003). As our interviewees identified, if a business is already set up for innovation – innovative behaviour is expected and encouraged – then it’s more likely to access and work on eco-innovation.

Finally, **scalability** and **visibility** are both required for successful eco-innovator or leader status. Scalability appears to be key particularly for sustainability leader status, as mass market brands look to “near peers” who are successfully employing an eco-innovation. Visibility is important to pick up the

attention of other brands: interviewees mentioned the cut-through of other business' campaigns which helped them to be perceived as eco-innovators, or the "loudest and proudest" brands which set the benchmark for others.

Despite luxury fashion businesses possessing a history of innovation, the responses from our interviewees suggested luxury brands were unlikely to inspire radical innovation or eco-innovation. However, interviewees were aware of the trickle-down effect, and felt it was most relevant in the area of 'newness' or aesthetic innovation. Therefore, there is an opportunity for luxury brands to do more in inspiring adoption of eco-innovation, if they're able to successfully implement the five point model highlighted in this research.

From the interviewees' responses, luxury fashion brands seem to have several of the five points. The luxury brands interviewed identified they had significant **'top down' support** (or emerging support) for innovation and eco-innovation – a strong degree of opinion leadership. The interviewees rated the importance of innovation near the top of the value range, suggesting there is a **framework for innovation** – the right structure and norms – in the business; one interviewee stated "we're not risk averse when it comes to innovation, and we take our time with it". This means they may be more able to investigate eco-innovations (as perceived by our interviewees). Finally, as luxury brands, they also have the potential for high **visibility** through well-financed marketing and communication strategies.

However, only one of them had a clear **sustainability-focused internal culture** – the "common goal" required to inform all other activities. Most importantly, the luxury brands interviewed are not operating at the same **scale** as mass market. One interviewee from a mass market brand mentioned how difficult it was to scale luxury eco-innovations and find a mid-market price point, another that some eco-innovations were too niche for mass market, and that mass market brands were "value engineering what the luxury guys have".

The challenge of demonstrating scalability to enable diffusion and successful adoption of the eco-innovation by other fashion businesses in the mass and value markets may not be the responsibility of luxury brands, but of change agents. These are defined by Rogers as "an individual [or entity] who attempts to influence clients' innovation-decisions in a direction that is deemed desirable by a change agency" (2003, p.38). The "social and technical chasms" (Rogers, 2003, p.368) which a change agent must communicate across could be identified as the difference between small-scale and high volume production culture and processes; the difference between luxury and mass market. The change agent has "one foot in each of the two worlds" (Rogers, 2003, p.368), helping them see the 'translation' possibilities of eco-innovation from luxury to mass market. In particular for eco-innovation, change agents need to have a foot in many worlds to help this happen: the fashion industry, consumer behaviour, NGO objectives, local community requirements, governmental legislation, science, design, marketing and systemic thinking. Entities wishing to encourage widespread adoption of eco-innovation in the fashion industry could consider how they can act as these change agents, translating the eco-innovations

being developing by luxury brands who have nearly all the elements of eco-innovator status into scalable solutions for mass market brands.

Conclusion

Luxury brands have a clear history and respected position of creative design and aesthetic innovation, and there are many contemporary examples of the trickle-down effect in practice. When asked about the occurrence of the trickle-down effect, the luxury brands interviewed said it still happened, particularly for this aesthetic innovation. Most interviewees from mass market brands identified that ‘newness’ or aesthetic innovation was influenced by the catwalk but that this was one in a range of inspirational sources, and this was separate from innovation and eco-innovation. However, they were much less likely to reference luxury brands as inspiring innovation or eco-innovation and the trickle-down effect was seen as less applicable.

Instead, interviewee responses suggest suppliers are very important in inspiring innovation in fashion businesses, and for eco-innovation inspiration from the CEO or senior management was most important. There is also more agreement between brands about where inspiration for innovation is found compared to inspiration for eco-innovation, which may come from very diverse sources. From this, it appears the trickle-down effect is perceived as less relevant for mass market brands for eco-innovation and innovation in general than aesthetic innovation. Instead, the trickle-sideways effect of adopting innovations from competitor brands seems to be a more applicable model for understanding how eco-innovation diffuses through the fashion industry.

Rogers’ model of innovation diffusion is helpful in explaining how the diffusion of eco-innovations occur. Interviewees identified competitors and senior stakeholders in individual businesses as key sources of inspiration for eco-innovation adoption. Depending on the type of innovation work these entities are doing, they can be placed in the innovator or early adopter category as defined by Rogers. Importantly, these categories bleed into each other. While it can be argued these entities are acting as early adopters by successfully using an eco-innovation, they could equally be the innovators themselves through their ‘challenge’ to suppliers to develop an eco-innovation. It’s less clear who the innovators for eco-innovation are in the fashion industry (compared to innovation in general) which poses challenges in understanding how eco-innovation diffuses and how it can be encouraged to diffuse. Using suppliers as innovators – according to our interviewees – could be one method to drive adoption of eco-innovations more successfully into the industry and individual businesses.

Considering suppliers as innovators for the mass market could help explain why luxury brands are not frequently mentioned as inspiring eco-innovation, despite being in a good position to do so. The supply base for the mass market is very often shared between different and competing mass market brands. Therefore suppliers act as a conduit between brands for the translation of innovations across a market sector. Luxury brands very rarely have suppliers that supply the mass market and therefore there are limited opportunities for adoption and diffusion through the supply base from luxury to mass market.

It is clear suppliers act as innovators, but there is a demarcation between suppliers of different sectors. The lack of supplier cross-over between market sectors encourages the perception further up in the supply chain that luxury brands, or mass market brands, aren't generating innovations which are inspiring widespread adoption, even if suppliers are independently introducing them to fashion businesses.

Our research suggests fashion brands wishing to set the right conditions for successful adoption of eco-innovation within their own business require this five point model:

- Strong opinion leadership, shown in **'top down' support**
- A clear "common goal" of a **sustainability-focused internal culture**
- A **framework for innovation**: structure (regulated behaviour) and norms (established behaviour patterns) which encourage innovation
- **Scalability**
- **Visibility**

Furthermore, there are similarities in the characteristics brands display as innovators and as eco-innovators; however, to be an eco-innovator the key difference appears to be the "common goal" of a sustainability-focused internal culture.

Fashion businesses without scalability and visibility may be perceived as eco-innovators, but they are unlikely to enable eco-innovation diffusion and adoption with the sectors which make up the largest volume of the fashion industry. Scalability is the biggest challenge to luxury fashion brands keen to position themselves as eco-innovators, and here a change agent may be required to realise luxury fashion eco-innovations in the mass market.

Endnotes

[1] Direct quotations from interviewees have been anonymised.

References

Ayuso, S., Rodríguez, M. A., García-Castro, R., and Ariño M. A. (2011), "Does stakeholder engagement promote sustainable innovation orientation?", *Industrial Management & Data Systems*, Vol. 111 No. 9, pp. 1399-1417.

Easey, F. (1995), *Fashion Marketing*, Oxford, Blackwell.

Hall, J., and Vrendenburg, H. (2003), "The Challenges of Innovating for Sustainable Development", *MIT Sloan Management Review*, Vol. 45 No. 1, pp. 61-68.

Kim Y. H. C. and Kozar, J. M. (2012), "Sustainability knowledge and behaviors of apparel and textile undergraduates", *International Journal of Sustainability in Higher Education*, Vol. 13 No.4, pp 394-407.

Kim Y. H. C. and Kozar, J. M. (2013), "Socially and environmentally responsible apparel consumption: knowledge, attitudes, and behaviors", *Social Responsibility Journal*, Vol. 9 No. 2, pp. 315-324.

Kozłowski, A., Bardecki, M. and Searcy, C (2012), "Environmental Impacts in the Fashion Industry; A Life-cycle and Stakeholder Framework", *The Journal of Corporate Citizenship*, No. 45, pp. 16-36.

Madsen, J., Hartlin, B., Perumalpillai, S., Selby, S., and Aumônier, S (2007), "Mapping of Evidence on Sustainable Development Impacts that Occur in Life Cycles of Clothing: A Report to the Department for Environment, Food and Rural Affairs. Environmental Resources Management (ERM) Ltd.", Defra, London.

Moon, K. K., Lai C. S., Lam, E. Y., and Chang, J. M. T. (2015), "Popularization of sustainable fashion: barriers and solutions", *The Journal of The Textile Institute*, Vol. 106 No.9, pp. 939-952.

Mueller, C. (1995), *Marketing today's fashion*, 3rd ed., Englewood Cliffs, N.J., Prentice Hall Education, Career and Technology.

Niinimäki, K. and Hassi, L. (2011), "Emerging design strategies in sustainable production and consumption of textiles and clothing", *Journal of Cleaner Production*, Vol. 19 No. 16, pp. 1876-1883.

Posner, H. (2011), *Marketing Fashion*, London, Laurence King.

Rogers, E. (2003), *Diffusion of innovations*, 5th ed., London, Free Press.

Schmidt, J., Dorner, K., Berg, A., Schumacher, T., Bockholdt, K. (2015), "The opportunity in online luxury fashion", McKinsey&Company, available at: https://www.mckinseyonmarketingandsales.com/sites/default/files/pdf/CSI_Online%20luxury%20fashion.pdf (accessed 12 May 2016).

Simmel, G. (1971), *On individuality and social forms: selected writings [of] Georg Simmel*, London, University of Chicago Press.

Veblen, T. (1899), *The Theory of the Leisure Class*, New York, Macmillan Company.