



NEMODE

Sectoral Case Study

New Business Models Enabled by Digital Technologies

A perspective from the fashion sector

Study report for the EPSRC RCUK DE research project

NEMODE (New Economic Models in the Digital Economy)

Luciano Batista

University of East Anglia, Norwich Business School, UK

L.Batista@uea.ac.uk

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Executive Summary

Challenging the sceptical view that consumers would not buy apparel and accessories without feeling the fabric and testing for size and look, online fashion sales is growing fast. Yet, the myriad of recent business model developments in the sector depicts a disorderly environment lacking frameworks and typologies to facilitate understanding and explain different business propositions.

This document reports the findings of a sectoral exploratory study that was developed in the fashion retail sector. The main objective of the project was to provide the parent project NEMODE with a perspective of new business model developments and improvements that emerged in the fashion retail sector through developments in the digital economy. The report points out example cases showing business model innovations in the sector, the core functionalities the models implement and key digital technologies and platforms enabling the core functionalities of the business models.

The project was an exploratory investigation that was developed in a short period of time (3 months). Thus, an exploratory approach involving environmental scanning was the investigation method used to identify business model innovations in the sector. The environmental scanning comprised searches on the internet, literature review of academic journals, business reports and press articles, and visits to fashion retailers in the UK.

The study focused upon business models in the fashion retail sector which are using digital technologies to implement conceptual models based upon personal subscription, mass customisation, social merchandising and collaborative consumption concepts and functionalities.

The main findings of the study show a widespread adoption of customer-oriented and social networking concepts and practices across different business models in the sector, which now faces a more complex scenario of relationships to manage. The study also shows that many fashion retailers are using digital technologies to “dematerialize” fitting or dressing rooms in form of “virtual fitting rooms” or “interactive mirrors” in order to create optimum value/cost outcomes. On the other hand, the “materialization” of customised designs through 3D printers is liberating people from constraints of time, space, actor and constellation. It is also possible to notice different degrees of technological mobilisations (i.e. different technological densities) created by different fashion retailers and these densities seem to be gradually shaping new “time-space-actor-constellations” models in the fashion retail sector where digital technologies play a vital role.

1. Introduction

The evolution of digital technologies and the pervasive nature of the internet have transformed significantly the way consumers shop. By accessing information and purchasing facilities available on the web, consumers are now able to shop online anywhere and at any time. Currently, online shopping represents a key sales channel for many retailers in general, adding substantial capabilities to organisations that not long ago were operating only with conventional sales channels. In its basic form, online retailing allows consumers to access and compare detailed information about products, check shop inventories, place orders, make payments, and make delivery arrangements through simple internet transactions (Vanheems & Kelly, 2009).

Over the last decade, digital technology advancements and innovative ways of using new web resources and platforms have paved the way for a renaissance in consumers' online shopping experience, particularly in the fashion sector – a sector where the customer shopping experience usually goes beyond mere browsing.

Challenging the sceptical view that consumers would not buy apparels and accessories without feeling the fabric and testing for size and look, online fashion sales is growing fast. Traditional brick-and-mortar retailers as well as new start-up companies are seizing the digital opportunity by creating innovative business models set to improve the customer shopping experience.

The fashion sector plays a significant role in many economies around the world and it is a key sector of the British economy in particular. According to the British Fashion Council (www.britishfashioncouncil.com), in 2009 the fashion sector contributed about £21bn to the total UK GDP (twice as much as the car manufacturing industry), generating over £13bn of direct taxation to government and supporting about one million direct jobs. To build upon this significant position, electronic retailing is seen by the council as a key area with great potential to grow and a fertile land for innovations.

Indeed, in order to improve the customer shopping experience recent business models developed in the electronic fashion retail sector are making use of customer relationship management (CRM) concepts and practices as well as capitalising on the social power of the internet. Furthermore, with the support of recent digital technology developments, traditional retailers in the fashion industry are also innovating at the intersection of the virtual with the real world by creating social web capabilities in-store to improve customers' experience and leverage sales.

This report points out examples of recent business model developments and improvements enabled by digital technologies in the fashion retail sector. Ultimately, its main objective is to provide the Research Councils UK (RCUK) Digital Economy (DE)'s New Economic Models in the Digital Economy (NEMODE) research project with a portfolio of illustrative cases that depicts a sectoral perspective of new business models emerged through developments in the digital economy. The report contributes to the production of some of the foundational materials for use by the NEMODE network over the life of the project and beyond. As required by NEMODE, the report illustrates historical, not speculative, business model developments and improvements. In addition, case study of single organisations was not the particular focus of the study at this exploratory phase. Accordingly, the illustrative cases in this report represent broader examples that exemplify a sector of the economy. This is, we provide examples across the fashion retail industry, showing how this important sector of the economy is changing through the development of digital technology.

To deal with the wide universe of initiatives in the sector, we organise the cases around business models that build upon CRM and social web concepts and functionalities. More specifically, the report focuses upon business models in the fashion retail sector which are using digital technologies to implement the following conceptual models:

1. Personal subscription
2. Mass customisation
3. Social merchandising
4. Collaborative consumption

The report is organised as follows: We start by presenting the main objective of the project and the methodological aspects of the study. We then present the theoretical basis for the conceptual models upon which the study focused. In the sequence, we point out key digital technologies and platforms that enabled innovative business models in the fashion retail sector. This is followed by the presentation of a series of business cases that illustrate how retailers in the fashion retail sector are using the digital technologies introduced in the previous section to implement the business model functionalities and concepts specified in the analytical framework. Finally, we conclude the report by pointing out potential areas for further research.

2. Objective and methodology

The main objective of the project was to provide NEMODE with a perspective of new business model developments and improvements that emerged in the fashion retail sector through developments in the digital economy. More specifically, the project was aimed at providing NEMODE with a portfolio of business models examples in the fashion retail sector which are using digital technologies to implement innovative functionalities that improve the customer experience in general. The key research questions concerning the study were:

- Which business model innovations have been emerging in the fashion retail sector more recently?
- Which core functionalities do the models implement to improve the customer experience?
- Which digital technologies and platforms enable the core functionalities of their business models?

The project was an exploratory investigation by nature and it was supposed to be developed in a short period of time; more specifically, over a three-month period. Accordingly, in order to identify illustrative examples in the sector we adopted an exploratory approach involving environmental scanning as the investigation method to identify new business model developments and improvements as well as the companies implementing them. The environmental scanning comprised searches on the internet, literature review of academic journals, business reports and press articles, and visits to fashion retailers.

The study was developed in a period of 12 weeks from September to November 2012. The research was structured in three stages, which led to the production of this report, as follows:

- **Stage 1** – Scanning of the technological context (3 weeks)

This stage of the study was developed in the initial three weeks of the project. It involved identification of enabling technologies and web platforms supporting the development and improvement of new business models in the sector.

From the perspective of the study, enabling technologies/platforms are the ones which provide resources and functionalities to support the implementation of CRM concepts and practices (e.g. capture of personalised information such as customer style, measurements and preferences) and peer-to-peer or social web integration.

- **Stage 2** – Scanning of new business models (6 weeks)

This was the main stage of the project and it took six weeks to be developed. In this stage, we identified cases across the sector that illustrate how fashion retailers are using digital technologies in order to implement new business models that build upon concepts and functionalities such as personal subscription, mass customisation, social merchandising and collaborative consumption.

Examples were selected to illustrate Normann's density principle (Normann, 2001) of how technology liberates users from constraints of time and place. In this sense, we looked at how companies were applying Normann's reconfiguration framework (Normann, 2001) by re-bundling technological resources mobilised for particular situations at a given time in a given place independent of location to create the optimum value/cost result. In addition, based upon Gulati & Garino (2000) 'click-and-mortar spectrum', the examples include cases of both online and offline (in-house) innovations that bring web capabilities into the traditional environment of retail operations. These theoretical perspectives provide a referential basis to involve the

fashion retail sector in wider studies concerned with value-creating service systems and e-commerce strategies.

Finally, to standardise the narrative of the illustrative cases presented in the report, we usually point out the companies' core product/service offerings, the key online functionalities and the main enabling technologies supporting the business model.

- **Stage 3 – Write-up (3 weeks)**

The final three weeks of the project involved finalisation of blog posts and elaboration of the final study report.

2.1. Dissemination

Dissemination was a continuous process in the study from the outset. More specifically, the dissemination process in the study involved illustration of the presented cases and supporting technologies/platforms through provision of videos and links to specific web sites (URLs), links to specialised articles, description of operational models (i.e. 'how-it-work' descriptions), and descriptions of technological resources and platforms. These were posted in a continual basis, as the study developed, to specific web areas that made the project findings available to special interest groups (e.g. posts to WordPress NEMODE blogs) as well as to the public in general, e.g. posts to public areas of facebook, twitter and LinkedIn.

A specific WordPress blog was created for the project. The web site named "<http://nemodefashion.wordpress.com>" (see Appendix I) was structured to highlight the conceptual models addressed in the study and the supporting digital technologies and platforms. The site was tightly linked with the NEMODE WordPress blog "<http://nemodenetwork.wordpress.com>".

Dissemination was reinforced nationally and internationally through conference publications and presentations derived from the project. Preliminary outcomes of the study were presented in a conference paper last year in the latest Oxford Retail Futures Conference on "New Technologies, Business Models and Customer Experience", which was organised by the Oxford Institute of Retail Management, Saïd Business School, University of Oxford. More recently, one conference abstract was accepted to be presented in the coming 2013 European Institute of Retailing and Services Studies (EIRASS) 20th International Conference on "Recent Advances in Retailing and Services Science", which will take place in the USA. A second conference abstract was accepted to be presented in the coming 2013 Naples Forum on Service "Service Dominant logic, Network & Systems - Theory and Service Science: integrating three perspectives for a new service agenda", which will take place in Italy. These abstracts will be expanded into full papers that can potentially be published in academic journals. Finally, a poster about the study and its main findings was presented last year in the Showcase Event on "Service Systems Capability" organised by the Service Systems Group of the International Institute for Product and Service Innovation at WMG, University of Warwick. The abstracts of the conference papers are presented in Appendix II of the report and the poster for the Showcase event in Warwick is shown in Appendix III.

3. Theoretical framework of analysis

Despite the substantial attention that business models have been drawing from academics and practitioners over the last years, there is no overall agreement on what a business model is. Some scholars (Zott *et al.*, 2011) recognise that business model as a subject-matter has been regularly employed to address three phenomena:

1. e-business and the use of IT by organisations;
2. strategic issues related to competitive advantage, organisational performance and value creation;
3. innovation and technology management.

In the study, we have adopted Amit & Zott (2001) perspective of business models by describing the innovative technologies and the contextual business structure and processes they are embedded in to create value through business propositions. We have also adopted Magretta's view that "*business models are stories that explain how enterprises work*" (Magretta, 2002, p. 4) as a mindset to describe the example cases in the report.

An underlying concern of the study was the identification of business model mechanisms or functionalities to engage customers not only in one-to-one interactive processes, but also in a wider social context where customers can engage with their social networks while having their shopping experience. We therefore consider key functionalities of CRM systems and social web platforms that allow customer engagement through personalised interactions, customisation processes, sharing of opinions about products, services and shopping experiences with the public, and connections with social networks and communities.

CRM is a wide field of knowledge *per se*, involving customer-oriented strategies and technological systems predominantly aimed at strengthening customer relationships (Payne & Frow, 2006). For this study, Hansotia's (2002) view that "CRM is essentially a customer data intensive effort" is of particular interest. This is a core issue addressed by CRM systems, which enable companies to capture specific customer information and translate it into personalised interactions and customised offerings. Indeed, each customer interaction produces extensive data. The purpose of CRM is to make inferences over this data in order to allow a company to identify patterns of consumption and customers' profiles, needs and preferences, which ultimately allow customised delivery of products and services (Buttle, 2008; Mithas *et al.*, 2005).

In an online environment, a mechanism through which companies can capture specific information about customer profile, needs and preferences is typically implemented via customer registration functionality. Many retailers developed this business model functionality by implementing the *personal subscription* concept, where customers complete a more detailed survey when registering (or subscribing) to their specific website. As a result, retailers become able to offer personalised selections of products to their customer on a regular basis (Wang *et al.*, 2005).

Other online functionalities allow the capture of individual preferences for specific products, letting customers to specify certain features of the products they are interested. Adopted in a large scale context, this functionality enables *mass customisation* models, where retailers deliver tailored products customised according to customers' attribute choices of style, colour, material, size, shape, etc.

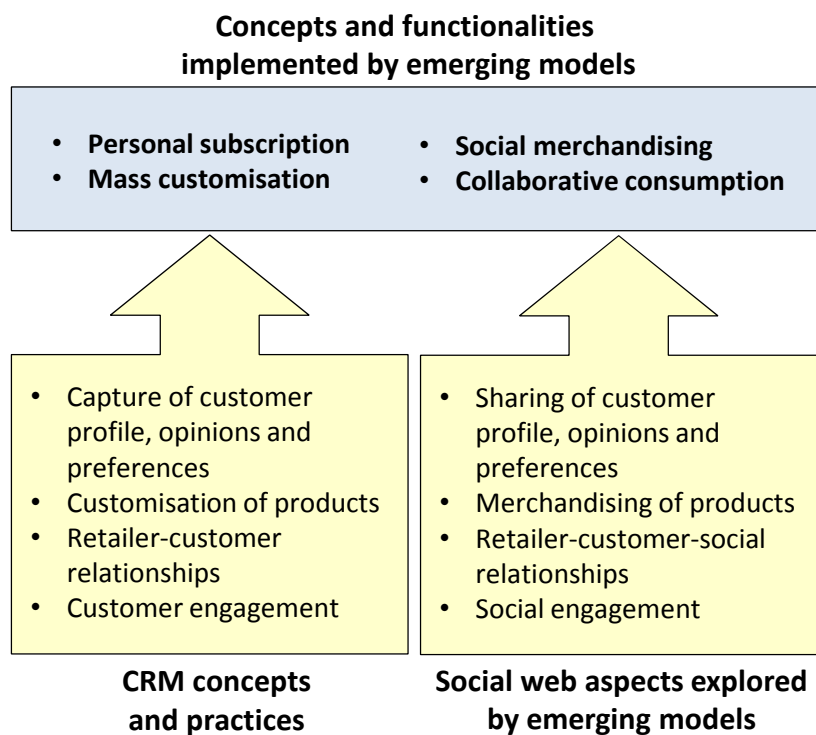
More recently, the adoption of social web concepts and platforms have expanded the boundaries of company-customer relationships to a wider company-customer-society configuration, paving the way for business models that implement functionalities and concepts such as *social merchandising* and *collaborative consumption*.

In models based upon the social merchandising concept, retailers capture customer feedback, or customer reviews (e.g. comments, quality rates, usability, etc.), on their products and attach the information to the items displayed on their website. Besides engaging customers in highlighting the features and quality of specific products to a larger public, this sort of feedback can potentially help retailers to align supply processes according to the popularity level of their offers (Picazo-Vela *et al.*, 2010).

By their turn, collaborative consumption models focus upon peer-to-peer marketplaces. Retailers exploring this model play a brokerage role by bringing third party sellers and buyers together and facilitating online transactions through their website platform (Botsman & Rogers, 2010). A peculiar feature of this model is that the offerings may also include used products, which can be sold, swapped, traded, rented and so forth. Furthermore, they also make use of social merchandising concepts by attaching customer ratings and reviews not only to the products being offered, but also to third party sellers.

Figure 1 provides a graphic perspective of the conceptual framework of analysis for the study, showing key CRM and social web aspects and functionalities explored by recent business model developments in the online fashion retail sector.

Figure 1 – Conceptual framework of analysis



4. Enabling technologies

Many companies in the fashion sector are recognising the need to embark into the digital economy world, where global consumers can communicate, share information and shop with the help of technological resources available on the internet. These technological resources are paving the way for a relentless focus on digital innovations in the industry.

In this section, we point out some of the key technological developments that are supporting business model innovations in the sector, particularly in the online fashion retail environment. The enabling technologies and platforms here presented play an important role in the implementation of the business models functionalities and concepts specified in the conceptual framework the study focused upon.

4.1. Virtual fitting room platforms

A major challenge faced by online fashion retailers is the fact that it is impossible for online shoppers to try physically the items of clothing they are interested in buying. In the industry this is the so-called “online fit problem”.

The online fit problem associated with the wide variation in sizing standards even within a single brand or retailer increases the level of returns in online clothing purchases, i.e. clothes returned due to wrong size purchase or fitting problems.

The study has identified two initiatives in the sector that attempt to minimise the problem by providing online fashion retailers with “virtual fitting room” functionalities, namely: The Fits.me and the Webcam Social Shopper (WSS) platforms.

1. Fits.me

The Fits.me (<http://fits.me>) solution applies advanced robotic technology to solve the online fit problem. A central element of their virtual fitting room solution is the ‘FitBot’ (Figure 2), a sophisticated robotic mannequin with artificial muscles able to mimic the shape and size of any body type.

To populate the database of a retailer adopting the Fits.me platform, a FitBot is dressed in each item of clothing, in each size. Each permutation is then photographed at high speed and in high resolution, while the FitBot runs rapidly through its thousands of different body shapes.

After capturing a customer’s basic measurements, an online retailer is able to display through the Fits.me platform garment pictures that correspond to the customer’s body shape. As a result, the customers can see how the garment in the range, in any of the available sizes, will look on them before making their online purchase. The Fits.me solution can also recommend a size, and even display warning indicators for the customers, showing where the fit of the chosen garment may be wrong.

Figure 2 – The Fits.me platform



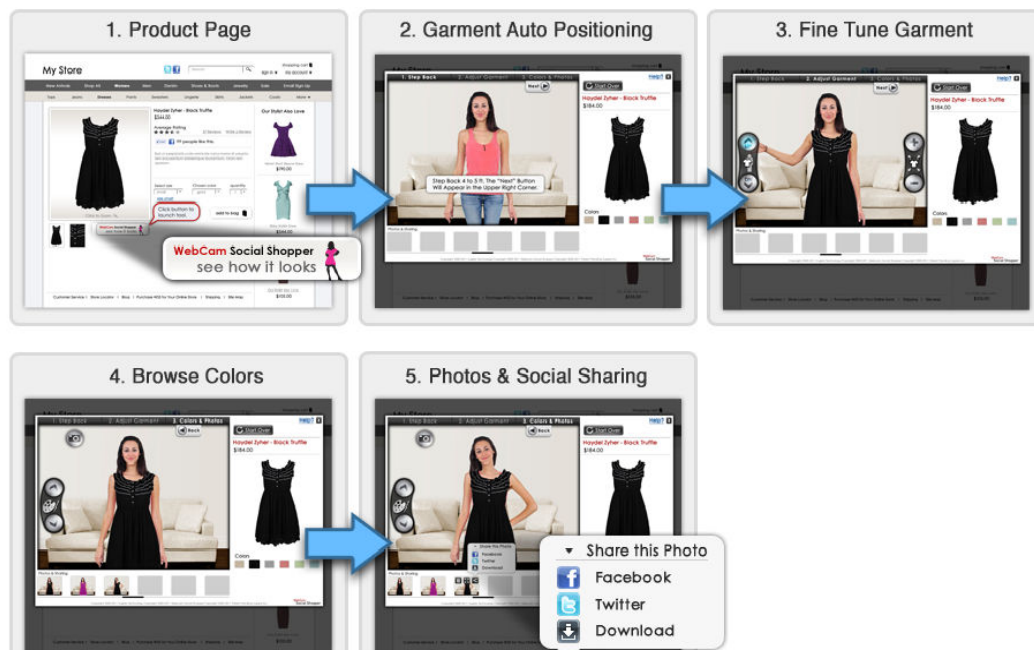
Source: <http://fits.me/content/fitsme-solution>

2. Webcam Social Shopper (WSS) platform

The Webcam Social Shopper (WSS) platform was developed by the company Zugara, a Los Angeles based company. The WSS solution integrates augmented reality and motion capture technologies with social networking functionality to provide virtual fitting room capability to fashion retailers by turning consumers' webcams into a real-time virtual mirror.

With this technology, shoppers can “virtually” take an item of clothing off the rack and hold it up to them, getting a sense of style and how they would look. If customers want to get a second opinion from friends, they can also capture their look on photos and share the images with friends on social networking websites such as Facebook and Twitter. Figure 3 below illustrates this process.

Figure 3 – The Webcam Social Shopper platform



Source: <http://webcamsocialshopper.com>

4.2. Interactive mirrors

The “interactive mirror”, also known as “magic mirror” or “virtual mirror”, is a technological device based on visual computing technology that implements the Augmented Reality concept, which, in a traditional brick-and-mortar retail context, implements “augmented retail” capability (Figure 4).

Interactive mirrors are particularly attractive to fashion retailers because they can be integrated with inventory management systems as well as with the internet. With these functionalities, interactive mirrors are able to capture (and reflect) a customer image and merge the image on the mirror with specific articles of clothing the customer browses. Thus, customers can have a first impression of how they would look and, furthermore, share the look with social contacts on Facebook or Twitter.

Traditional retailers such as Macy’s are exploring the potentialities of this technology.

Figure 4 – Interactive mirror



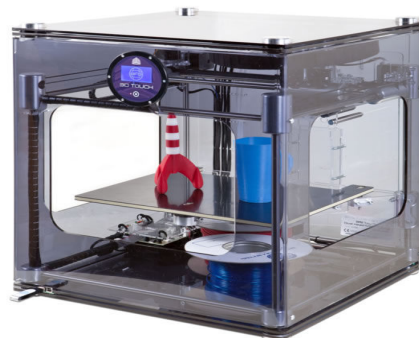
Source: <http://www.redcmarketing.net>

4.3. 3D Printer

3D printing is a process that makes three dimensional solid objects from a digital model designed with the help of animation modelling software and Computer Aided Design (CAD) applications. The digital model is literally printed on a materials printer, which prints successive layers of a specific material until the physical 3D object takes its full shape.

3D printing can be seen as a really disruptive technology, paving the way for new business models in different sectors of the economy such as civil engineering, industrial design, health, manufacturing, etc. and the fashion sector is no exception. Companies such as Shapeways are developing new business models based on 3D printing services where customers can design and print to order fashion items such as jewellery, accessories, footwear and bikinis. The Shapeways case is presented in the next section.

Figure 5 – 3D Printer



Source: <http://www.resins-online.com>

5. Illustrative cases in the fashion retail sector

With basis on the conceptual framework of analysis introduced in Section 3, we provide a series of business cases in the fashion retail sector that illustrate how companies are implementing one or more of the concepts and functionalities highlighted in the framework. Some of the cases presented in this section illustrate innovative initiatives in conventional brick-and-mortar contexts, showing how traditional fashion retailers are bringing digital technologies in-house in order to build capabilities around the main concepts in the framework.

It is important to mention that the cases are presented in a didactic categorisation according to the business model concepts and functionalities they explore. Not uncommonly, fashion retailers implement more than one of the concepts in the framework, which are integrated within their business model proposal.

5.1. Personal subscription

Business models based upon personal subscription concepts have become quite common in online retailing. As a matter of fact, personal subscription of customers has become a standard functionality in online retail environments and innovations in this area are now centered on the way retailers integrate the concept into their business model.

Personal subscription is particularly critical in online fashion retailing because its functionality allows retailers to capture detailed and specific information on customer style, tastes, age, gender, preferences, size measurements, and so forth, which is captured when customers complete a subscription form in the joining process. This resource enables personalised interactions and product selections according to customers' profile, resulting in greater customer loyalty and better inventory management (Sorescu, *et al.*, 2011; Wang *et al.*, 2005).

We present below two cases to illustrate how online fashion retailers are exploring personal subscription functionalities in their business models.

Case 1: Ermenegildo Zegna

The Ermenegildo Zegna Group is a traditional Italian company in the fashion industry that has focused on retailing, pioneering early entry in emerging luxury markets and the BRIC market in particular. Zegna was the first luxury mens brand to open a fully owned store in China and the country is now the biggest market for the Zegna brand worldwide with over 70 point of sales across the region. Currently, there are 555 Ermenegildo Zegna points of sale in over 80 countries, of which 311 are direct operating stores.

The company's global retailing strategy is reinforced by its online operations through their online shop Zegna.com (www.zegna.com). To consolidate its business culture based on a company-wide quest for quality and a constant focus on customers, Zegna's online shop adopts personal subscription functionalities to reinforce their corporate identity with customised products. More specifically, the company uses personal subscription resources to capture specific information about customer style, size measurements and product delivery addresses stored together with the customer profile. The company also uses the virtual fitting room platform Fits.me to help customers to visualise how the items of clothing they are browsing fit their size measurements.

Customers can also opt to receive corporate newsletters and information about fashion events. Specific fashion shows and events can also be streamed Live on iPhone and iPad Zegna Apps. The online environment also has customer review functionalities, RSS feeds and integration with facebook, twitter, YouTube and Google+.

Zenga also uses personal subscription resources to implement a private VIP access to a specific area of its online retail shop called Zegna World Pass, where customers have access to highly personalised and made-to-measure services. The company has also a specific channel for Corporate Gift collections, through which a dedicated team works with corporate clients to customise products to the customers' logo and brand.

Key enabling technologies:

- Web environment
- Personal subscription resources
- Virtual fitting room platform
- Link to social web platforms

Case 2: Smithfield Case

Smithfield Case (www.smithfieldcase.com) is a London based company whose business model proposition is to serve as an alternative to stressful and time consuming traditional shopping experiences. For this, the company designed a business model aimed at a more personalised approach and stress-free experience for the customers.

To implement a more personalised approach to its customers, the Smithfield Case model is based on the personal subscription concept. They target the men's market segment and sell a broad range of designer brands from high-end department stores.

Their business model innovation is in the way they select, present and sell products to the customers. In the registration process, customers fill in a questionnaire with detailed information about their address, fashion style, preferences and general measurement attributes. Qualitative data related to what the customer is looking for in terms of general wardrobe items or new outfits are also collected in the process. The retailer uses this information to send to the customer address a case with a selection of items matching their profile and style preferences. After trying the items, customers decide what to keep and arrange collection of the items to be returned to the retailer. Customers only pay for what they keep and the delivery/collection fees involved. The retailer offers a free evenings and weekends delivery/collection service in the central London area.

The cases are only sent to customers by request, unless a regular delivery schedule is previously set by them in the registration process.

Key enabling technologies:

- Web environment
- Personal subscription resources

5.2. Mass customisation

The number of retailers implementing mass customisation models has been considerably growing over the last decade (Dellaert & Dabholkar, 2009). In this model, customers can actively participate in the design of the products they want to buy, individualising items according to their specific

choices of style, shape, size, colour, and other aesthetic attributes. This functionality can be compared to a pull production system where the customers trigger the production of products rather than the retailer pushing pre-manufactured items to the customers.

Retailers implementing this model can differentiate themselves from the competition by selling products with a high degree of personalisation, which is harder to both replicate and be found elsewhere (Dellaert & Dabholkar, 2009; Sorescu *et al.*, 2011). Recent technological advancements are making the implementation of business models based on mass customisation concepts more feasible and the 3D-printer technology is a remarkable example to illustrate this aspect, as highlighted in the case below.

Case 3: Shapeways

The company Shapeways (www.shapeways.com) is a remarkable case of a business model implementing mass customisation functionalities enabled by 3D printing technology. It is a New York based company that shaped its business model as an online platform for individual or business customers to create and share 3D designs as well as to buy and sell 3D printed products from a range of materials that offer a unique combination of practical and aesthetic properties.

They see themselves as the “world's leading 3D printing marketplace and community”. Through their platform, everyone can make, upload and share 3D printing designs, making product design more accessible worldwide.

Shapeways also 3D prints products on demand, including a range of fashion items, via customised and personalised orders. Fashion accessories, shoes and the N12 bikini from the company Continuum Fashion are concrete examples 3D-printable fashion products being commercialised by Shapeways.

Customer can choose different types of source materials to be used in the 3D printing process, e.g. silver, stainless steel, hard or flexible plastic, ceramic, etc.

Key enabling technologies:

- Web environment
- E-commerce web platforms
- 3D printing

Presently, most of the retailers selling 3D printed products are doing it through business models based upon online environments. However, a recent case of 3D printing technology adoption in a brick-and-mortar context shows that 3D printers can also be used in-store as a complementary service.

Case 4: MakerBot

The company MakerBot (www.makerbot.com) manufactures consumer-ready 3D printers (i.e. desktop 3D printers for end consumers) and related consumables that are relatively cost-effective. They provide expertise and customer service for the items that can be created with their printers.

MakerBot has recently opened its first conventional high-street retail shop in New York, where customers are able to experience the 3D printer technology demonstrated by 3D design staff and have the chance to buy gifts and accessories made on MakerBot 3D desktop printers.

In the shop, besides buying 3D printers and related consumables, customers can also buy personalised gifts, watch MakerBot 3D printers working live to create new objects and attend tutorials and workshops.

Key enabling technology:

- 3D printing

It is still early to predict the impact of 3D printing technology on traditional brick-and-mortar retailers. Nonetheless, as the use of desktop 3D printers scales up and their retail prices go down, we can logically infer that in the long-term 3D printers are likely to make their way into end-consumers' homes, where people will be able to 3D print traditional items such as plastic cups, cutlery, small gifts, accessories, toys, etc. This will almost certainly pose a threat to retailers that sell items that can be easily printed at home. In the short- and medium-term, it would not be a surprise to find conventional retailers following the MakerBot lead to adopt 3D printing technology in-store to sell customised items as a complementary service.

5.3. Social merchandising

In practical terms, social merchandising models in online environments implement effective word-of-mouth communications in form of user-generated content, which is more widely known as customer ratings and reviews. Retailers exploring this model not only make use of customers' opinions and perceptions to leverage sales, but also to connect with customers' social networks (Picazo-Vela *et al.*, 2010). This allows retailers to project their products to a wider audience and, furthermore, to inform potential customers on which of their social network contacts are also customers.

The well-known online retailer Amazon.com has long ago integrated customer ratings and reviews into its online model. In the fashion sector, recent innovations in social merchandising models draw on both the social and the media power of the internet to project products to customers' social networks. In short, one can say that social merchandising is also going visual, as illustrated in the case below.

Case 5: LazyLazy.com

The Danish company LazyLazy.com (www.lazylazy.com) is a virtual shopping centre where different brands have their own webshop environment with core shopping functionalities and resources available.

Their webshop environment includes the virtual fitting room platform Webcam Social Shopper developed by Zugara (see Section 4.1). With this technology shoppers can "virtually" try clothing items as well as capture their look on photos and share the images with friends on social networking websites such as Facebook and Twitter.

This technology reinforces the implementation of the “social shopping” or “shop with friends” concept explored by the company. For instance, by using the social integration resources and functionalities available in their online environment customers can shop together with friends and family no matter where they are. They can share screens with friends, chat real time and create styles from their favourite brands. Customers can also virtually visit different stores together with friends, show friends clothes that they would like to buy and, even though they are participating together on the same “shopping trip”, they can place things in their own individual baskets.

In addition to being an innovative online shopping centre, LazyLazy.com also sees itself as a platform for a fashion community. For this, the company provides the customers with tools to write their own blogs, follow brands and bloggers and get inspiration for their personal style.

Key enabling technologies:

- Web environment
- Virtual fitting rooms
- Social networking integration
- Blogs

Interestingly, the virtual fitting room technology is also making its way into traditional brick-and-mortar environments through virtual mirrors (or their interactive or magic mirrors variations). These technologies are enabling social merchandising capabilities in conventional fashion retailing. For example, in an initiative to engage with young customers in Facebook, the fashion retailer Diesel has not limited itself to just opening a Diesel shop on Facebook, they also brought Facebook connectivity to in-store points. The idea was to turn customers into Diesel models with the support of cameras specially installed in special mirrors placed in a particular section of fitting room areas so that customers could easily share with their social contacts images of the items they were trying.

Despite the initial scepticism about the widespread adoption of virtual mirrors in-store due to implementation issues concerning technical failures, overflow of customers crowding into specific shop areas and non-intuitive controllers (Lyndsay, 2004), the potential adoption of this type of technology in-store should not be underestimated. Strong technology players such as Intel, Toshiba and Microsoft with its Kinect technology are behind recent developments in virtual (or interactive) mirror technology.

Moreover, traditional fashion retailers such as Macy’s, Selfridges, Republic and others are experimenting with the adoption of virtual mirrors in-store in order to equip staff with a unique sales tool to leverage sales, to drive traffic to their social platforms/shops on the web, and to enable customers to access their profile data in-store. For instance, a recent Internet Retailing article reported the figures of a three-day trial by the fashion retailer Hugo Boss of the Von Bismark’s Wardrobe physical web solution based upon virtual mirror technology (<http://vonbismark.com/wardrobe>). According to the report, the experiment has increased customer in-store traffic by 110%, generated 200 customer interactions which lasted 20 seconds each. From these interactions, 50 pictures were shared on Facebook, which generated 1,025 Facebook Likes and resulted in an audience peak of 20,000 people reached by the brand on Facebook (Internet Retailing, 2012).

5.4. Collaborative consumption

New business models based upon the collaborative consumption concept are paving the way for a 'sharing economy' where the dominant consumption logic is shifting from product ownership to product usage (Botsman & Rogers, 2010), i.e. consumers in collaborative consumption markets are more interested in using products rather than owning products.

Although in collaborative consumption marketplaces goods that are privately owned by end consumers can be sold for cash (as in the case of eBay's platform for example), companies implementing collaborative consumption models usually offer goods as a service as well, rather than just selling them as products. More specifically, these models typically involve peer-to-peer marketplaces where unused space, goods, skills, money, or services can be rented, borrowed, bartered, traded, and swapped. That is why collaborative consumption models can be seen as more environmentally sustainable forms of commerce. In a wider perspective, recent developments in collaborative consumption models have been influenced by economic austerity, awareness of the wasteful nature of consumerism, and issues of global warming and environmental pollution.

In the web context, collaborative consumption models are based upon online social commerce sharing networks, which are peer-to-peer social commerce business models aimed at sharing real-world assets and resources. This new form of e-commerce has emerged from the recent juxtaposition of online social networking, e-commerce and word-of-mouth marketing to create further value-added activities based upon the sharing of goods and services.

Due to their global nature and potential for growth, collaborative consumption sharing networks might have a strong and possibly disruptive impact on retailing (online and offline) and other sectors. It is possible to find concrete examples of collaborative consumption initiatives in the online fashion retail sector, as illustrated in the case below.

Case 6: I-Ella

A typical example of collaborative consumption model in the online fashion retail sector is the one implemented by the company I-Ella (www.i-ella.com).

Under the motto "share your closet" the company has developed a collaborative consumption platform on the web where registered members (I-Ella is a members only community) are able to buy, borrow, swap, sell or lend fashion apparel, accessories and shoes.

I-Ella also features auction events backed by celebrities and style icons. In these auctions, celebrities pull together their most-loved pieces and give a brief history for each. Users then can bid on items during the auction period, with proceeds benefiting the celebrity's charity of choice. In addition to celebrities, fashion industry veterans will have the opportunity to sell their pieces and promote their causes as well.

In their revenue model, there are no fees for listing products on the platform, but the company collects fees over completed transactions. For instance, when products are sold the sellers keep 85 percent of the paid price and the company keeps 15 percent as transaction fee. Ten percent of this transaction fee is donated to a charity selected by the buyer. Donation to charities is a strong feature of the I-Ella business model.

Key enabling technologies:

- Web environment
- E-commerce resources and functionalities

In the study we have noticed that collaborative consumption initiatives in online environments in particular are relatively recent and little is actually understood about these new business models and their wider implications for consumers, the economy and society, particularly how they differ from existing e-commerce models and how they create value, how consumers react to innovative aspects of the models (such as the rent versus buy decision) and what the impact of these models is likely to be on business sectors such as retailing.

With this in mind, a further research initiative was derived from this study. General aspects related to collaborative consumption models identified in the study were fed into a wider research grant proposal submitted to the recent RCUK DE EPSRC NEMinDE (New Economic Models in the Digital Economy) call in December last year. The project titled “Online Social Commerce Sharing Networks: Assessing Value and Impact of New Business Models” involves research collaboration between the University of East Anglia and the University of Birmingham and it is aimed at assessing the sustainability of new digital business models based on the phenomenon of collaborative consumption through social commerce sharing. At the time of writing this report, we had not heard from the EPSRC reviewers.

6. Conclusion

This report presented the outcomes of a sectoral case study aimed at providing a perspective of new business models emerging in the online fashion retail sector through developments in digital technologies.

From the illustrative cases here presented, it is possible to notice a widespread adoption of customer-oriented and social networking concepts and practices across different business models in the sector. An interesting aspect observed in the study is the augmented scope of the relationships that fashion retailers are now able to explore. This is mainly due to the positioning of customers’ social networks into the retailers’ reach by the customers themselves, who now have easy access to their social contacts from the online, and sometimes in-store, environments they are interacting with.

Retailers now have a more complex scenario of relationships to manage and this complexity calls for further research where phenomena concerning social relationship management are investigated.

The study also provides illustrative examples of Normann’s “dematerialization” and “re-bundling” concepts. For instance, many fashion retailers are using digital technologies to “dematerialize” fitting or dressing rooms in form of “virtual fitting rooms” or “interactive mirrors”. To create optimum value/cost outcomes, these resources are being combined (re-bundled) with other technologies and platforms on the internet (e.g. e-commerce, social networking and collaborative consumption platforms) to liberate people from constraints of time (when things can be done), space (where things can be done), actor (who can do what – human and nonhuman), and constellation (with whom things can be done). Paradoxically, the “materialization” of customised designs through 3D printers is actually liberating people from constraints of time, space, actor and constellation as well.

From the cases here presented, we can see that there are different degrees of technological mobilisations (i.e. different technological densities) created by different fashion retailers and these densities seem to be gradually shaping new “time-space-actor-constellations” models in the fashion retail sector where digital technologies play a vital role. Normann’s Reconfiguration Framework (Normann, 2001) seems to be a very helpful conceptual model to provide theoretical support in future research on this area.

In general, the findings of this exploratory study are not conclusive; rather, they provide valuable insights and point out potential directions for future developments. For instance, the conceptual framework here presented can be used as a basis for more in-depth research where a maturity model related to relationship-based capabilities of retailers could be derived. How retailers are incorporating the merging of social web with e-commerce into their business is another fertile area for further research. The adoption of social web functionalities in conventional brick-and-mortar contexts is a related aspect of research in this area.

Finally, collaborative consumption models seem to be gaining momentum among retailers and their growth enabled by web platforms is certainly an area deserving further investigation.

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Appendix I – WordPress blog for the case study

WordPress blog for the case study

<http://nemodefashion.wordpress.com>

NEMODE – Fashion retail sector

HOME ABOUT TECHNOLOGIES & PLATFORMS BUSINESS MODELS



About

This is a supplementary blog space to the NEMODE project. It provides a perspective of new business models that emerged in the fashion retail sector in particular through developments in the digital economy.

[NEMODE](#) (New Economic Models in the Digital Economy) is a multidisciplinary initiative designed to create a network of researchers and practitioners to explore new economic models in the digital economy. The project, which began in April 2012 and has funding of £1.5 million over the next three years, is an initiative under the Research Councils UK (RCUK)'s [Digital Economy \(DE\)](#) research programme.

This blog space contributes to the production of some of the foundational materials for use by the network over the life of the project and beyond. Here, we explore a historical (not speculative) perspective of the fashion retail sector, examining how this important sector of the economy is changing through the development of technology.

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NEMODE – Fashion retail sector



3D-Printing

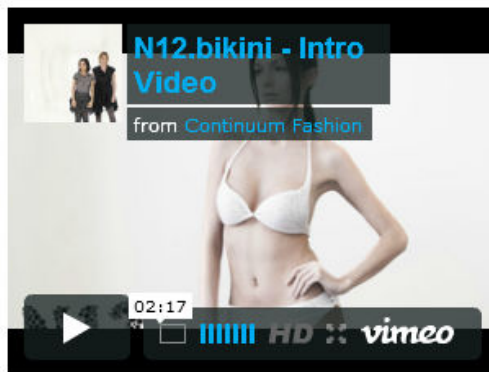
3D-Printing is a process that makes three dimensional solid objects from a digital model designed with the help of animation modelling software and Computer Aided Design (CAD) applications. The digital model is literally printed on a materials printer, which prints successive layers of a specific material until the physical 3D object takes its full shape.

See how it works:



3D-Printing technology is paving the way for new business models in different sectors of the economy such as civil engineering, industrial design, health, manufacturing, etc. and the fashion sector is no exception. Companies such as [Shapeways](#) and [Continuum Fashion](#) are developing new business models based on 3D printing services where customers can design and print to order fashion items such as jewellery, accessories, footwear and bikinis.

See the N12 bikini 3D printed by Continuum Fashion and Shapeways:



Share this: [Twitter](#) [Facebook](#) 2

Recent Posts

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Appendix II – Conference papers and abstracts

Appendix II.1. Oxford Retail Futures Conference paper

Saïd Business School – University of Oxford
Oxford Retail Futures Conference
New Technologies, Business Models and Customer Experience
10-11 December, 2012

The emergence of relationship-based retailing – a perspective from the fashion sector

Luciano Batista¹ and Irene Ng²

¹University of East Anglia, Norwich Business School, UK

²University of Warwick, Warwick Manufacturing Group, UK

L.Batista@uea.ac.uk, Irene.Ng@wmg.warwick.ac.uk

Abstract

Challenging the sceptical view that consumers would not buy apparel and accessories without feeling the fabric and testing for size and look, online fashion sales is growing fast. Yet, the myriad of recent business model developments in the sector depicts a disorderly environment lacking frameworks and typologies to facilitate understanding and explain different business propositions. In this paper, we report the preliminary findings of a work-in-progress study being developed in the fashion retail sector. Initial analysis showed a regular presence of relationship-based functionalities in current business models emerged in the electronic fashion retailing context. It is also possible to notice a widespread adoption of relationship-based functionalities across different business models in the sector. The models are presented under a conceptual framework developed to support and facilitate understanding of the core functionalities they implement. Furthermore, the study also identified click-and-mortar initiatives where fashion retailers integrate online relationship-based functionalities into their conventional brick-and-mortar operations. An interesting aspect observed in the study is the augmented scope of the relationships that fashion retailers are now able to explore. This is mainly due to the positioning of customers' social networks into the retailers' reach by the customers themselves, who now have easy access to their social contacts from the online, and sometimes in-store, environments they are interacting with.

Key words: online retail, business models, CRM, social web, digital technology

Appendix II.2. EIRASS 2013 Conference Abstract

THE EUROPEAN INSTITUTE OF RETAILING AND SERVICES STUDIES (EIRASS)
20th international conference on RECENT ADVANCES IN RETAILING AND SERVICES SCIENCE

July 7-10, 2013

Renaissance Philadelphia Airport hotel
Philadelphia, USA

**The rise of collaborative consumption – implications
for retailing and value creation systems**

Luciano Batista¹, Nuno Fouto² and Anne Smith³

¹University of East Anglia, Norwich Business School, UK

²University of Sao Paulo, Management Institute Foundation, Brazil

³The Open University, Faculty of Business and Law, UK

L.Batista@uea.ac.uk, nfouto@usp.br, Anne.Smith@open.ac.uk

Abstract:

This paper discusses the emergence of new business models in the digital economy that are leveraging the internet as a sharing platform where social networks can engage in collaborative consumption initiatives. These models are widening access to physical goods and venues beyond conventional retailers' environments.

Collaborative consumption models combine social networking technologies to further value-added activities based upon the sharing of goods such as cars, bikes, apparels, equipment, residential spaces, and so-forth. They focus on peer-to-peer marketplaces where unused space, goods, money, or services can be rented, borrowed, traded, and swapped. Moreover, exchanges in these models can also involve far more intricate things than capital; they can also involve exchanges of time, experience, competence and skills.

The rapid expansion of collaborative consumption models is paving the way for a so-called "sharing economy" where the dominant consumption logic is shifting from product ownership to product usage (Botsman & Rogers, 2011). New forms of social commerce based on sharing values are expected to disrupt significantly conventional retailing by creating a socioeconomic groundswell that can potentially transform the way people consume and the value proposition of businesses (Gansky, 2010). This posits profound implications for the retail industry, as people now are able to consume goods and services from each other in an unprecedented scale and outside conventional retailing environments. What are the main drivers for the proliferation of collaborative consumption businesses? What is the potential impact of these business models on conventional retailing? How they are re-conceptualising commercial value? How can we take into account social elements in value creation systems?

In this paper, we provide a characterisation of business models based on collaborative consumption concepts, describing their main functionalities as well as their business propositions for new forms of retailing. We also discuss the converging factors that are contributing to the creation of a sharing phenomenon and the potential implications for the retail industry. Finally, we re-visit classic definitions of value constellations (Normann, 2001) by considering the expansion of value creation systems from the dyad company-customer to the triad company-customer-society.

Appendix II.3. 2013 Naples Forum Conference Abstract

The 2013 Naples Forum on Service - Service Dominant logic, Network & Systems Theory and Service Science: integrating three perspectives for a new service agenda

From June 18 to June 21

L'Albergo della Regina Isabella, Piazza Santa Restituta, Ischia (Na), Italy

The homeostasis paradox of new business models

Luciano Batista¹, Irene Ng² and Roger Maull³

¹University of East Anglia, Norwich Business School, UK

²University of Warwick, Warwick Manufacturing Group, UK

³University of Exeter, Exeter Business School, UK

L.Batista@uea.ac.uk, Irene.Ng@wmg.warwick.ac.uk, R.S.Maull@exeter.ac.uk

Abstract

The rapid evolution of digital technologies over the last decade has paved the way for an upsurge of new business models that capitalise on the many facilities, functionalities and resources available on the internet and mobile platforms in particular. The speed and variety of new business models emerging in the digital economy created a disruptive environment that lacks theoretical frameworks and perspectives to help academics, practitioners and policy makers to critically understand and appraise the phenomenon of new business models emergence.

In a time when there is little consensus on what a business model actually is (Ostenwalder et al., 2005), the lack of theoretical basis to explain the emergence of new business models augments the complexity of the problem. In this paper we address this neglect by discussing the phenomenon of new business models emergence from a systems thinking perspective, shedding light on change and adaptiveness issues concerning business model innovation. For this, we revisit fundamental questions raised by Normann (2001) when he discussed change and creation phenomena. How do companies adapt to the increased complexity of market contexts? How do they not only adapt reactively but create new and innovative systems proactively?

Various lines of academic enquiry have drawn from systems theories and approaches such as general systems theory (von Bertalanffy, 1968), open systems theory (Katz & Kahn, 1978), cybernetics (Weiner, 1948), viable systems (Beer, 1972; Barile & Polese, 2010), system dynamics (Forrester, 1998) and complex adaptive systems (Schneider & Somers, 2006), to explain how companies adapt themselves to face new challenges. An underlying tenet in these theories and approaches is the homeostasis principle, which is one of the most remarkable and most typical properties of open and complex systems. Homeostasis is the principle of equilibrium, a systems property to react to external disturbances in order to maintain stability and survive. It implies self-adaptation to offset disrupting changes and reestablish the initial state.

From a business perspective, homeostasis refers to a company's ability to maintain its state of equilibrium by counteracting internal and external turbulences through contextual variety absorption (Ashby, 1958; Ng et al., 2012). A key issue we discuss in this paper is that adaptive variability does not necessarily entails reestablishment of an original state of equilibrium. This is particularly the case of companies developing new business models.

For instance, the newness of a 'new' business model infers non-existence of an antecedent original state that provides basis for adaptation towards equilibrium. Thus, we infer that the development of a new business model entails change to a different organisational state that, due to lack of a referential status for equilibrium, represents a state of dynamic disequilibrium, which paradoxically

may provide basis for a state of equilibrium if the new model is successful. In this sense, we postulate that in organisations developing new business models homeostatic adaptations to restore equilibrium are typically preceded by adaptation to a different state of temporary dynamic disequilibrium.

To explain this phenomenon we build upon Normann's perception of 'bifurcation points' of instability, where a "system as a whole may take on new properties that no longer seem related to the original elements or its initial state" (Normann, 2011, p. 166). Furthermore, we also build upon Beer's concepts of attenuation and amplification of variety (Beer, 1972) to differentiate 'homeostatic change' (adaptation to attenuate disruption and reestablish an equilibrium state) from 'disruptive change' (adaptation to amplify disruption to a novel state that can conceivably influence the environment). The novel state can be considered as a new referential state for future homeostatic changes to maintain equilibrium until other disruptive changes take place.

As practical illustration, we use the theoretical perspective developed in the paper to explain the emergence of new business models enabled by digital technologies in the fashion retail sector. This was an exploratory sectoral study that involved environmental scanning to identify new business models emerging in the industry. From the theoretical perspective here addressed, one can see disruptive technologies as drivers of bifurcation points of instability for organisations. To deal with these instabilities, companies can opt for implementing either an attenuation or amplification strategy. The attenuation strategy is developed through homeostatic changes that attenuate disruptions in order to maintain a state of equilibrium. On the other hand, the amplification strategy can be implemented through disruptive changes that amplify disruptions by contextualizing the disruptive technologies into a new business model proposition for the market.

Besides the theoretical contributions developed in the paper, we provide insights for practical business management by discussing the managerial implications of the theoretical aspects here addressed for service systems innovations. We then conclude the paper by pointing out relevant issues for future research in the realm of service science.

Appendix III – Warwick WMG showcase poster

Showcase Event: Service Systems Capability

Tuesday 4th December 2012

Service Systems Group, International Institute for Product and Service Innovation
WMG University of Warwick, Coventry, UK

New Business Models Enabled by Digital Technologies – a perspective from the fashion sector A sectoral case study for the EPSRC RCUK DE project NEMODE (New Economic Models in the Digital Economy)

The fashion sector plays a significant role in many economies around the world and it is a key sector of the British economy in particular. In 2009, just after the economic downturn of 2008, the fashion industry contributed about £21bn to the total UK GDP, generating over £13bn of direct taxation to government and supporting about one million direct jobs.
(British Fashion Council)

Research Objective

To provide NEMODE with a perspective of new business models emerged in the fashion retail sector through developments in the digital economy



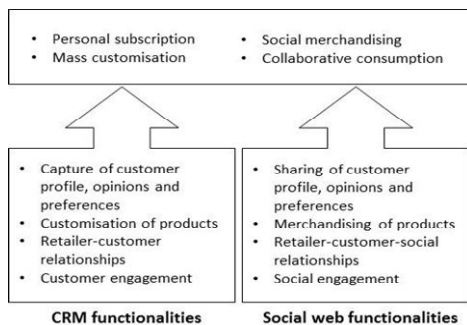
Research questions:

- Which new business models are emerging in the sector recently?
- Which core CRM/Social functionalities do the models implement?
- Which digital technologies and platforms enable their value propositions?

Research method: Exploratory approach involving environmental scanning to identify new business models, supporting technologies and the companies implementing them.



NEMODE



Research focus: Recent business models emerged in the fashion retail sector are capitalising on CRM practices and the social power of the internet. To deal with the wide universe of initiatives in the sector, we analysed different business models from the perspective of a conceptual framework that builds upon CRM and social web functionalities that enable personal subscription, mass customisation, social merchandising and collaborative consumption concepts.

Business innovations in the sector:

