

Institution: 10007822
Unit of Assessment: 19
Title of case study: Return to sender: improving profitability and customer service in retailing
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Returned items cost the UK retail sector £6.75 billion per annum. Inter-disciplinary collaborative research at Cranfield School of Management and University of Sheffield, funded by Department for Transport and the Chartered Institute of Management Accounting developed a Reverse Logistics Toolkit which has reduced returns to companies in the UK retail sector by up to 40%, with substantial cost savings, improvements in customer service and reduced transport.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Reverse Logistics relates to products that are returned to retailers by customers either soon after the product has been purchased (normally within the retailer's return policy) or within the warranty period if the product has become faulty.</p> <p>Reverse logistics has become increasingly recognised by academics and practitioners as an important discipline within supply chain management and an important focus of logistics research at Cranfield. A decade ago, there was limited reference to managerial processes for reverse logistics in the literature and even less on the possibilities of using strategic management accounting techniques alongside other disciplines to improve its management.</p> <p>This inter-institutional collaborative research project built on Bernon and Cullen's prior research funded by Department for Transport (2003-2004). This research had valued UK retail returns at £6.75 billion a year [R1], and suggested that companies experienced up to 30% - more within certain distribution channels - of products returned by customers.</p> <p>The project, which began in May 2005, set out to develop a practical toolkit designed to facilitate more efficient and effective management of reverse logistics. The Department for Transport (DfT) funded the interventionist research project as part of its Sustainable Distribution policy initiative [F1]. The Chartered Institute of Management Accounting (CIMA) provided additional funding so that the project could engage management accountants in the research [F2]. Funding for the project was split equally between the two universities, with Cullen (Sheffield) and Bernon (Cranfield) equal partners.</p> <p>The Reverse Logistics Toolkit was developed through intensive interaction at 13 workshops and industrial forums held at Cranfield between 2005 and 2007. An average of 20 managers from 40 companies (including, Halfords, VAX and O2) connected to the UK retail sector, attended each event [R5].</p> <p>The researchers published the Reverse Logistics Toolkit in 2009 [R2], an electronic diagnostic and performance improvement tool, that enables companies to use a traffic light system to audit returns and identify opportunities to reduce costs and waste and to improve customer service [R3].</p> <p>To understand costs and value creation across the supply chain, the toolkit incorporated management accounting techniques such as quality costing, opportunity costing, activity based costing, and the balanced scorecard approach to improve both diagnosis and performance management [R2].</p> <p>The process of co-creation integrated the knowledge of researchers and the craft knowledge of managers engaged in reverse logistics and resulted in the practitioner toolkit. The research has also provided high quality academic outputs, including a conceptual framework [R4], highlighting advances in theoretical understanding [R5] and a systematic empirical exploration of the benefits associated with integrating reverse logistics in to an entire supply chain between retailers, distributors and manufacturers [R6].</p>

3. References to the research (indicative maximum of six references)

[R1] Bernon M. and Cullen J. (2007) “An integrated approach to managing reverse logistics”, *International Journal of Logistics: Research and Applications*, Vol. 10, pp.41-56.

[R2] Bernon, M.P., Cullen, J. and Gorst, J.K (2008) *Reverse Logistics Toolkit (Self-Assessment Workbook)*, 2009, Department for Transport. [J.K Gorst was a research assistant employed at the University of Sheffield on this project].

[R3] Cullen, J., Bernon, M.P. and Gorst, J.K. (2010) Tools to manage reverse logistics, CIMA Research Executive Summary Series (2010), Vol. 6, Issue 3.

[R4] Bernon, M., Rossi, S., and Cullen, J. (2011) “Retail reverse logistics: a call and grounding framework for research”, *International Journal of Physical Distribution and Logistics Management*, Vol. 41, pp. 484-510.

[R5] Cullen, J., Tsamenyi, M., Bernon, M. and Gorst, J.K. (2013), “Reverse Logistics in the UK Retail Sector: A case study of the role of management accounting in driving organisational change”, *Management Accounting Research*, Vol. 24, no. 3, pp. 212-227.

[R6] Bernon, M., Upperton, J., Bastl, M. and Cullen, J. (2013), “An exploration of supply chain integration in the retail product returns process”, *International Journal of Physical Distribution and Logistics Management*, Vol. 43, no. 7, pp. 586-608.

Details of Funding:

[F1] Bernon, M. and Cullen, J. “Tools to Manage Reverse Logistics” – major project funded by Department for Transport (£230,000+VAT), resulted in the publication of the toolkit in 2009.

[F2] Cullen, J. and Bernon, M. “Reverse Logistics” – project funded by CIMA (£9,500), completed as part of the CIMA Research Executive Summary Series, 2010.

4. Details of the impact (indicative maximum 750 words)

The case demonstrates **economic, commercial, organisational impacts** delivered through our ‘**Pathway to Impact**’, **No. 1 – Bespoke research projects**. The research findings were used by the Department for Transport and by the Chartered Institute of Management Accounting to inform and encourage best practice within retail organisations.

Impact on Government and Professional Bodies

Reverse Logistics was an important area of investment for the Department for Transport (DfT) as it fell within its policy on Sustainable Distribution. In 2008 the DfT put the completed toolkit on their website on Freight Best Practice **[S1, S2]**. This site, archived in 2010 on completion of the DfT’s funding, was highly regarded in the freight industry. It provided essential information on topics such as saving fuel, developing skills, equipment and systems, and performance management **[S1]**. All materials were available to download free of charge.

Reflecting on the reverse logistics project a Manager at DfT said: “*the work undertaken by Bernon and Cullen in developing their Reverse Logistics Toolkit has played a significant part in providing organisations with the ability to review their reverse logistics processes and also identify performance improvement steps aimed at improving efficiency, reducing costs and improving customer service*” **[S1]**.

In 2009, the Chartered Institute of Management Accounting (CIMA) also published the toolkit on its website and held follow-up workshops for its members. In Feb 2012, CIMA and The American Institute of Certified Public Accountants (AICPA) launched a Global Joint Venture called Chartered Global Management Accountants (CGMA), a new professional designation for Management Accountants. The CGMA is designed to elevate management accounting and further emphasise its importance for businesses worldwide. The Reverse Logistics Toolkit was one of the first 12 toolkits to feature on the CGMA website **[S3; S4]**. Approximately 18 months after it had been featured, the

toolkit's webpage had 563 unique visitors and the toolkit itself had been downloaded 960 times [S4].

User engagement and impact

The managers from 40 organisations who co-created the toolkit through the industrial forums and workshops benefitted significantly. They took ideas back to their organisations, sharing good practices, identifying benchmarks, and implementing new processes.

Industrial partners who supported the development of the reverse logistics toolkit included Avon, Christian Salvesen, Consilium, Dale C Rockell, DHL, Entertainment UK, Fuel Champ, Halfords, LCP Consulting, Linpac, Menzies Distribution, O2, PC World, Stiller Group, Vivendi Universal Games and Wincanton [R2]. We included statements from company representatives in our final presentation to the Department for Transport. For example, a supply chain manager at Avon said: *"It has been useful to see that other companies face similar challenges, and to share experiences with colleagues working to capture the significant benefits this area offers, with the 'cradle to grave' approach across their business practices that it takes"* and a customer services manager at PC World noted that: *"The reverse logistics project is a great opportunity to meet with other retailers to discuss relevant issues and share best practice"* [S5]. Three examples from the many companies that have benefitted from the toolkit are detailed below.

Halfords Group plc

At Halfords, one of the organisations involved in the project, the impact has been extensive [S6; R5; S7]. As a result of several changes to its reverse logistics processes, through the use of avoidance techniques designed to deter returns from customers immediately post-purchase and increased transparency of information, there was a 40% reduction in returns. Changes to the reverse logistics processes reduced non-compliance from 15% to 2% at stores with agreed returns processes [S6]. As a consequence of specific relationship-building interventions with Far-East suppliers, Halfords reduced customer returns of these direct-sourced items by 40% over a two year period resulting in reduced risk to the business and significant improvements in finance and customer service [R5; S6]. Finally, the value of returns during the period fell by on average £450,000 per month which represents an annual reduction of £5.4 million per year [R5; S6].

The Head of Quality & Cost Reduction at Halfords Plc was involved in the project from the beginning. Our research work influenced the whole of the Halfords Reverse Logistics (Returns) processes. A sample quote from Halfords is: *"The reverse logistics project had a major influence on the introduction of new reverse logistics processes within Halfords. It helped to increase awareness of the issues and the large potential for improvement to both bottom line performance and customer service through the introduction of improved processes. The identification of new tools and the support provided by discussions at the workshops played a vital part in the implementation of change at Halfords"* [S7]. The work has influenced relationships throughout the supply chain: the new processes affected all 460 stores in the UK and supply chain partners, with around 40% of supplies coming from the Far East [S6].

[text removed for publication]

[text removed for publication] Trading Account and Returns Manager downloaded the toolkit from the CIMA website in 2010. Utilising ideas embedded in the toolkit, [text removed for publication] implemented new processes relating to returns avoidance, alternative disposition routes and performance measurement. These new processes have led to benefits and savings for the company [S8]. Consequently, in 2013, the Reverse Logistics Manager at [text removed for publication] also joined a collaborative benchmarking club which aims to further improve processes against best practice.

Vax

Vax Ltd is a wholly owned subsidiary of Hong Kong based TechTronic Industries Co.Ltd (TTi) a multi-billion dollar company owning a large portfolio of brands within the power tool and floor care sectors. Following a review of reverse logistics processes which was influenced by engagement with the research team, a pilot scheme with two retailers resulted in significant improvements.

Returns attributed to 'no-fault found' fell by up to 40%. Pre-authorization of returns reduced the number of returns from one retailer by 90% within a short period. The annualised savings from these initiatives was calculated at nearly one million pounds [R6; S9]. These savings figures are conservative as the full implications of designing out quality problems will take time to mature as future product families will reap the real benefits. For example, on one product line alone, not recorded in the figures above, the company has reported a 6% reduction in returns [R6; S9]

5. Sources to corroborate the impact (indicative maximum of 10 references)

[S1] Email / statement (Aug 13) from the manager research, CAEP and technical at Department for Transport (DfT) outlining why the research was important to the DfT and the impact on users of the toolkit.

[S2] Department for Transport, Freight Best Practice Site, 2009. (Site was archived in 2010, version available: <http://freightbestpractice.org.uk/default.aspx?appid=3705&pid=3544>).

[S3] Email / Statement from CIMA contact [Research and Development Manager] confirming the toolkits download information and outlining their perception of the value of the research.

[S4] CGMA Website www.cgma.com – Resources – Tools – Logistics – How to manage reverse logistics.

[S5] DfT – Final project presentation to Department for Transport (2007).

[S6] Cullen, J., Bernon, M.P. and Gorst, J.K. (2011) *Reverse Logistics: Halfords*, CIMA (online). Available at: <http://www.cimaglobal.com/en-gb/Thought-leadership/Research-topics/Management-accounting-in-different-sectors/Reverse-logistics-Halfords/>

[S7] Statement (Aug 13) from the Head of Quality & Cost Reduction, Halfords Group PLC corroborating impact described in Halfords.

[S8] Statement from the Electrical Returns Manager at [text removed for publication] confirming that the company's Trade Finance Manager at [text removed for publication] (2010-2011) downloaded and used the tool and that the company has observed benefits as a result of the changes made.

[S9] Statement from current Operations Director at Vax PLC (see e-mail plus article, [R6]) corroborating impact in Vax.