



Product recall research

GOVERNMENT CONSUMER SAFETY RESEARCH

dti

Department of Trade and Industry

April 2000

Research commissioned by Consumer Affairs Directorate, DTI.

Department of Trade and Industry
1 Victoria Street
London
SW1H 0ET

Carried out under contract by:
Sambrook Research International
30 Station Road
Newport
Shropshire
TF10 7EN
Tel: 01952 825444
Fax: 01952 825425

URN 99/1255

C o n t e n t s

p a g e

Summary	1
Background, objectives, method	3
Background to the programme of research	3
The main objectives of the research	3
Definition of the scope of the study	3
The research methods and sample	4
The scale of product recalls in the UK	6
Consumer product recall database	6
Consumer product recalls from 1990 to 1996	6
The main product groupings for consumer product recalls	7
Consumer product recalls by type of product	7
The main causes in manufacture leading to defect	11
The type of company involved in the product recall programme	11
How companies recall consumer products - what triggers the recall?	12
Who is involved externally in the recall programme?	13
Presence of a recall methodology, statement or procedure	14
Typical product recall procedure initiated by a manufacturer/importer	14
How the recall varies when undertaken by a retailer	15
Setting targets for the recall of a consumer product	16
The methods used to inform the consumer	16
Average expenditure on product recalls by manufacturers and retailers	18
The nature of the action required by the consumer	19
How stores/suppliers rectify the product defect	20
Effectiveness of product recalls - the percentage of products successfully recalled	21
The rate of success by type of product group	24
The percentage successfully recalled by value of the product	25
Benchmark for success as perceived by manufacturers/other suppliers, retailers	26

Summary

This study examines the number and quality of product (safety) recalls for consumer products for which the DTI has policy responsibility. It therefore excludes food, motor vehicles and pharmaceutical products. This research report gives an overview of the current voluntary product recall system. The DTI also published a good practice guide on product recall in November 1999.

There was an average of 42 consumer product recalls per annum during the period 1990 - 1996. The number of recalls each year is rising. Nearly half the items concerned are electrical goods (47%) with an average of 20 recalls every year. The next most common category is non-electrical toys (17%) followed by childcare items (7%) and clothing (7%).

The main cause of recalls is a potential electrical fault (46%), including overheating, fire or electric shock. Choking by children is the next largest risk category (15%). Usually the risk is that part of a toy or clothing can become detached with the risk of fire or of the child choking. The other main hazards for which recalls are made are parts becoming loose or the item collapsing, the item fracturing in some way, and the presence of unexpected sharp objects. 59% of product recalls result from poor designs and 32% from manufacturing process problems. Two thirds of recalls were initiated by the manufacturer/importer, and nearly a third by sole retailers where the item is only sold through their stores. 71% of product recalls were triggered by customer complaints, either direct to the retailer or manufacturer/importer or occasionally through Trading Standards. 35% of product recalls were triggered by accidents to consumers, half of which involved just one single incident.

Nearly two thirds of companies interviewed had a product recall methodology statement or procedure, although some (15%) had been introduced after a product recall. Two thirds of companies did not set a target for the percentage of products recalled, modified or replaced but simply aimed to recall 'as many as possible'.

Target recall rate varied for different products and associated factors. For example, products costing less than £10 or products that consumers perceive to have a low hazard risk and/or items purchased some time ago (> 12 months) are associated with lower recall rate expectations. Higher value products are products with hazards that consumers are likely to perceive as having a 'high' safety risk. Businesses aimed for a much higher target level of recall.

Items costing less than £10 generally achieve low recall rates (less than 10%). It appears to be difficult to motivate consumers to respond to recall notices for low cost items, probably because they do not consider it worthwhile for such a low cost product. The average recall rate for items costing more than £10 was fairly constant (44% - 51%), rising slightly as the cost of the product increases above £50.

The average cost of those recalls studied was £39,000. This generally includes the cost of press safety notices, plus in-store notices and the cost of any direct mail to the customer where lists are available. The availability of comprehensive customer lists is often associated with low expenditure (less than £20,000) and relatively high recall rates (>50%). Expenditures of £80,000+ (involving extensive safety notices in national and regional press) also generally achieve recall rates of >50%. However, spending £80,000+ does not guarantee a high recall rate.

Background to the programme of research

The DTI Consumer Affairs Directorate has overall responsibility in Government for home safety. It tackles this by using a range of tools, promoting voluntary codes of practice, national, European and international safety standards, safety awareness and, if necessary as a last resort, regulation. This work is underpinned by high quality research and the collection and collation of accident statistics.

Even the most responsible business can make mistakes. If a fault in a product is discovered after thousands of products have been sold to consumers, then the corrective action needed can involve not only stopping further supply until the fault can be rectified in all new products offered for sale, but also affected products sold to consumers might need to be recalled to fully safeguard consumers.

The DTI therefore commissioned a research study to obtain feedback from companies that have recalled products (for the product area for which the DTI has policy responsibility)*, to assess the current state of play.

The main objectives of the research

The main objectives of the research programme are summarised below.

- To assess the frequency, type and nature of product recalls which are carried out due to safety concerns across all major product sectors.
- To identify the key reasons and factors determining why certain product recalls appear to have been particularly successful, as well as those which seem to have been less effective.
- To analyse the different approaches (and level of resources) used to recall products, the cost of these methods, and how effective they are in recalling products.
- To analyse the main factors which businesses use to determine the scale of resources they consider appropriate to allocate to various defective product recalls.

Definition of the scope of the study

Whilst it is recognised that product recalls occur across a wide range of products, this study focused on specific products of interest to the Department of Trade and Industry Consumer Affairs Directorate (which sponsored this research programme). Hence, the scope of the research excluded automotive vehicles, food and pharmaceutical products. However, many of the lessons learned in the study can be equally applied to these other consumer product areas.

** All consumer products excluding food, pharmaceuticals and motor vehicles.*

The research methods and sample.

The research focused on assessing the scale and nature of recalled products and obtaining feedback from organisations that had recently recalled products.

During the study, desk research, short telephone interviews, fax and letter contacts were made to determine the total number of relevant product recalls each year; the key product sectors involved; and the specific companies which have carried out product recalls both successfully and unsuccessfully over the seven years 1990-1996. The Royal Society for the Prevention of Accidents (RoSPA) and the Institute for Trading Standards Authorities (ITSA) were of particular assistance in providing their in-house records of product recalls over this period.

25 in-depth face-to-face interviews were also carried out among manufacturers, importers, other suppliers and retailers in the UK, who had initiated product recalls during the period 1992-1996. Interviews were organised to include major international groups as well as smaller companies, and covered the main types of product identified as being most frequently recalled. Seven face-to-face interviews were also carried out with companies in mainland Europe (3 in France, 3 in the Netherlands, and 1 in Belgium) to identify best practice achieved by continental companies.

Records show that the 25 companies interviewed in the UK were involved in just over 21% of the total number of recalls in the five year period 1992-1996. Companies interviewed face-to-face were asked to discuss up to three product recalls. The 32 companies interviewed had been involved in 76 product recalls over the past six years, of which 42 were discussed during the interview, and of these extensive quantitative details were provided for 34 specific product recalls. Only partial details were available for the remaining 8 recalls. The quantitative analysis relating to recalls is, therefore, based on consistent comparisons and trends of those 34 recalls.

Companies interviewed were selected randomly from the list of product recalls identified from the ITSA/RoSPA database. The main selection criterion was to ensure that the final sample profile was reasonably similar to the profile of the total products recalled (by type of product e.g. electrical, toys, etc). The team contacted as wide a range of different types of organisation as possible (i.e. manufacturers, retailers, etc).

The hit-rate was very high with very few outright refusals (less than 10%). The face-to-face method was one key reason for this. Another was that the project was on behalf of the Government. The confidential nature of the interview, supported by the official letter from

the DTI, also helped to achieve a high strike rate. Some companies were concerned that their recall rates were very low, but most (if not all) agreed to interviews once it was explained that the purpose of the study was to analyse both high and low recall rates to understand the factors that affect recall rates.

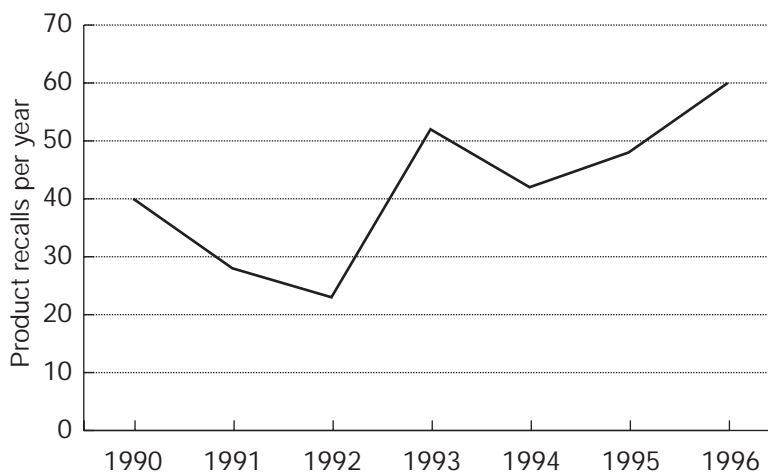
Several companies had recalled more than one product in the preceding five years. The research team requested information on all of these recalls, regardless of the recall rate achieved. The actual recall rates were not known before any interviews were fixed.

The main reason why a small number of companies contacted was not interviewed was because they felt they could not provide any reliable data, usually because a third party had handled the recall (in which case we endeavoured to contact these companies) or because all the relevant people had moved on. In a small number of cases accurate/any records had not been made. As far as we can remember, only two companies refused because of lack of time.

Consumer product recall database

Inspection of RoSPA and ITSA records of product recalls and information from several major retailers provided a database of 269 consumer goods recalled for safety reasons from 1990-1996. These excluded food, pharmaceuticals and automotive goods, for example cars, but included consumer purchases of automotive accessories.

Consumer product recalls from 1990 to 1996

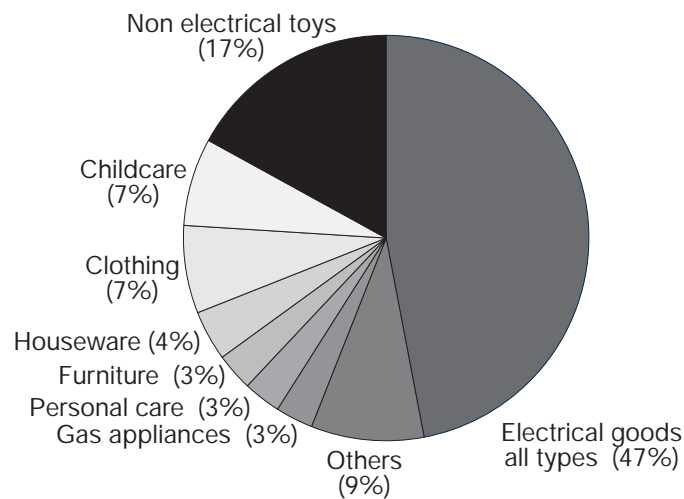


Source: RoSPA, ITSA, face-to-face interviews

The product recall information gathered by RoSPA and ITSA is estimated to cover about 85-90% of the consumer product recalls. This was confirmed by discussions with major retail groups. Furthermore in-depth interviews in phase 2 with 25 UK companies who had initiated product recall programmes identified a further four product recalls in addition to the 57 cases identified for these companies on the RoSPA/ITSA database which raises the number of product recalls in the RoSPA/ITSA database by about 7%. This database identified an average of 38 product recalls per year for the period 1990-1996, and has been increased by 10% to allow for additional unidentified recalls, to give an estimated 42 product recalls each year.

During the seven year period, there appears to have been a steady rise in the number of product recalls, having risen by 38% from around 36 a year for the period 1990-1993 to around 50 a year for the period 1994-1996.

The main product groupings for consumer product recalls



Source: RoSPA, ITSA, face-to-face interviews

The main type of consumer product recalled is electrical in nature, mains or battery operated, accounting for nearly half of recalls and with an average of 20 product recalls per annum, followed by non-electrical toys with 17% of consumer recalls.

In subsequent sections some products may be shown in other groups, for example an electric hedge trimmer in garden equipment.

Consumer product recalls by type of product

Domestic appliances brown goods

This category covers a wide variety of electrical appliances used in the home including televisions, kettles, irons, hairdryers, lamps and seasonal items such as Christmas tree lights. The most frequently recalled items, televisions, were mainly recalled in 1993. 62% of recalls in this category are due to electrical safety problems including the dangers of overheating, fires and electric shock. Other dangers include items fracturing or having loose parts, and the danger of access to sharp objects.

Toys

Products recalled include soft toys, racing sets, baby items such as rattles, large outdoor items such as climbing frames and slides, and also toys given away free as promotional items in snacks, shops and restaurants. No particular type of toy was identified as more frequently subject to recall than others. 35% of recalls were due to the risk of choking, as a part or parts become detached during use. Other risks with a significant number of mentions are: part of the item loosening during use so that a child may fall from a toy such

as a swing (11%); the risk of sharp objects in the toy which could harm the child (9%); and also the danger of entrapment (7%). Other risks mentioned were allergic reaction, fracturing of the item, electric shock, overheating, electrical risk, poisoning and suffocation.

Domestic appliances white goods

The most commonly recalled white goods are washing machines and washer dryers, accounting for nearly half the recalls in this sector (48%). Freezers and other refrigeration products account for a further 16%, and dishwashers 12%. This category also includes other electrical household items such as radiators and showers which are not included in brown goods. Almost all risks (70%) where known are of an electrical nature split evenly between the risk of fire, overheating and unspecified electrical risk. Parts falling off were also mentioned as a reason for the recall.

DIY

Most items recalled are power tools such as grinders, drills and jigsaws. Other items include security lighting and window locks. 47% of recalls of DIY items are due to electrical risks such as receiving electric shocks or the item overheating or unspecified electrical hazard. Other reasons for recall where known are the item fracturing or parts loosening during use.

Childcare

Recalls of child safety seats for cars and bicycles and pushchairs account for nearly half this category (48%). Other examples of recalls are babies' dummies, bottle warmers and baby alarms. The main reason for the recall (38%) is that parts of the item will loosen, become unattached or collapse and thus no longer hold the child safely in the seat or pushchair. The other main risk mentioned is choking (19%) where part of the item can become detached.

Electrical accessories

This category includes a wide variety of items such as Residual Current devices (RCDs), sockets, light bulbs, fuses, switches, with no particular product having significantly more recalls than others. The main risk is an electrical hazard.

Clothing/footwear

Almost all products recalled are childrenswear rather than adultwear, such as dungarees, jackets, hats, sweatshirts and are mainly recalled for fear of choking on small parts that can become detached during use (59%), or because the item does not meet fire safety standards and safety specifications.

Garden equipment

The gardening items recalled are mainly electrical such as lawnmowers and hedge trimmers, usually for reasons of a potential electrical hazard. Also mentioned was the danger of sharp objects and access to internal mechanism. Other items are garden furniture which may collapse or is unstable.

Houseware

Examples of recalls are can openers, casserole dishes, pans, where the main risk is that the item has loose or broken parts such as handles or bases, which may collapse at any time, causing the item and its contents to drop.

Personal care

There is only about one product recall a year of personal care items. Examples of recalls are sun tan cream, toothpaste, skin creams and lotions. The main risk with sun tan cream is that the product does not meet the level of protection as claimed. Skin irritation and the fragmentation of glass packaging are also reasons for product recall in this sector.

Furniture

There is about one furniture recall a year, and examples of furniture recalled are children's beds, wardrobes and TV cabinets. There were too few examples to identify any significant reasons for recall, although loose parts which could fall off the furniture, choking, and electrical risks were mentioned.

Gas appliances

There is on average one product recall of a gas appliance a year. The main types of appliance recalled are domestic heaters and greenhouse heaters, together with gas cylinders for camping gas equipment. The main reason for the recall is the risk of gas leaking from the appliance. Also mentioned was the risk of fire or explosion.

Leisure

There is about one product recall a year of a leisure product. Almost all recalls (90%) in this sector are bicycles or items connected with bikes such as bicycle lights and bicycle carriers, and the main hazard is that parts of the item may become loose, with the risk of accident. Other items included in this sector are pet equipment.

Household chemicals

There are very few product recalls of a household chemical nature, about 1 a year, and recalls include aerosols with potential leakage problems and plug-in items with electrical hazards.

Automotive accessories

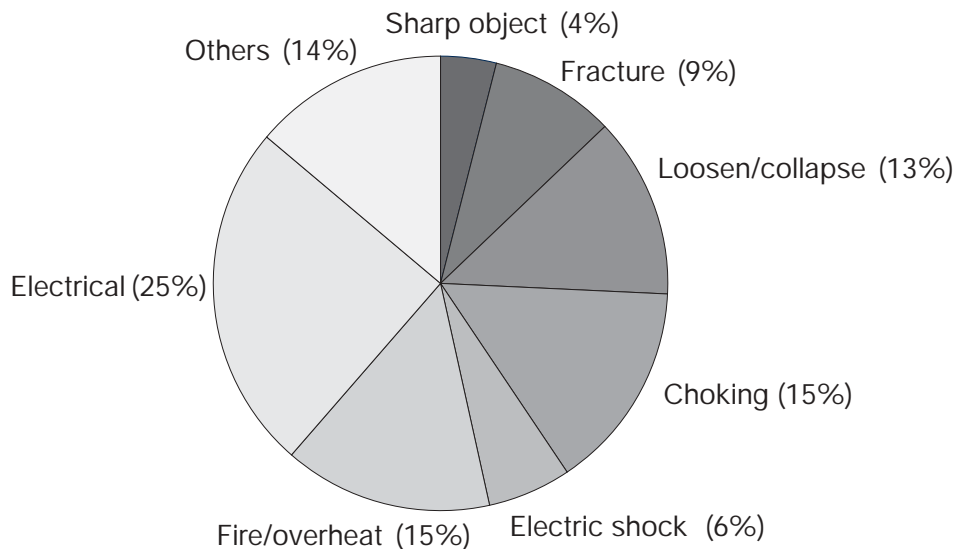
Very few product recalls were identified among automotive accessories (ie about 1 every 2 years), and there is insufficient data on the safety risks involved.

Other

These include other items such as pens and jewellery. The main risks identified are children choking, suffocating or being poisoned by putting the item in their mouth.

The main hazards for which product recalls are made

In nearly 80% of recalls, there is information about the reason for the recall, and these are shown in the pie chart below to indicate the main potential hazards identified.



Source: RoSPA, TSA, face-to-face interviews

Electrical hazards represent the largest type of potential risk identified, accounting for 46% of all hazards when grouped together. About 25% of all risks were electrical safety risks of an unspecified nature, and in 15% of cases there was the risk of the item overheating or of fire, and the danger of receiving an electric shock was mentioned in 6% of recalls.

Choking (15%) is the next largest risk category. Usually the risk is to children - a toy or clothing - from which a part can become detached with the resultant potential risk of choking.

Loosening or collapse (13%) often involves childcare items, toys, items of furniture and houseware goods, where part of the item can become loose. For example the safety belts on a pushchair may easily become loose, and the child may free itself or fall out without the adult being aware of the potential danger. Cookware items such as pans may have loose handles which become detached, which may lead to an accident, particularly if the pan is full of hot liquid or fat at the time.

Fracture (9%) The risk is usually in terms of the casing or the packaging fracturing in some way such as glass fragments breaking away from a container.

Sharp objects (4%) The risk of sharp objects is mainly mentioned in terms of toys in which it is found that sharp objects are present and could harm a child. Also mentioned were gaps in casings which could allow access to sharp moving parts both in gardening equipment and in houseware items.

Others (14%) include gas or content leakage, skin or eye irritation, entrapment, not meeting the specification, suffocation, poisoning and scalding.

The main causes in manufacture leading to the defect

Inadequate design was identified as the main cause of the defect leading to nearly 60% of products recalled, based on in-depth analysis of 34 product recalls. Usually the design specification meant that a part was used which, in practice, was not adequate for the purpose. Occasionally poor product specifications were mentioned alongside inadequate design.

Manufacturing process problems were responsible for about 32% of defects, where a manufacturer had changed a part or process, such as glueing instead of welding, without informing the supplier of the finished product, and also where the manufacturing process quality was unsatisfactory.

Other reasons mentioned were inadequate quality control and poor product specification.

The type of company involved in the product recall programme

Manufacturers, other suppliers and importers initiate just under two-thirds of product recalls. Where possible they will inform distributors, wholesalers and retailers of the recall, and retailers may themselves decide to advise the consumer by the use of in-store notices. Recalls for domestic appliances, garden equipment gas appliances and leisure equipment are in the sample studied tended to be led by the manufacturer or importer rather than retailers.

Sole retailer

Just under a third of product recalls are initiated by a retail group which is the sole supplier of the item to the consumer. Recalls of clothing and houseware items are primarily recalled by individual retail groups.

Various retailers

A few recalls are initiated by a number of retailers. One example is furniture where there had been wide publicity about the item, particularly where accidents with children had been involved.

Direct mail

No product recalls of items sold by direct mail were identified during the study. However several of the retail companies with experience of product recalls issued product catalogues, which allow for home ordering as well as in-store purchases.

How companies recall consumer products - What triggers the product recall?

Carrying out effective product recall is not straightforward. To boost effectiveness in this area, the DTI published a new good practice guide on product recall, in collaboration with the Confederation of British Industry and Retail Consortium in November 1999. Most carry out a detailed risk assessment (either formally or informally) to determine whether or not a product recall is appropriate. This usually takes into account a number of relevant factors including the total number of faulty products sold, the nature of the fault, the nature of the risk and whether or not the product is still on the market. The main factors that influenced companies to initiate a risk assessment and subsequently to decide to recall products are given below.

Customer complaints

Customer complaints are the main trigger for 71% of product recalls, about half of which refer to an accident and half refer to potential safety hazards. A single customer complaint is sufficient in 50% of cases for companies to start to be concerned about consumer safety. Some companies (12%) wait for 2-3 complaints before taking action, whilst in 9% of cases multiple complaints trigger a product recall. 8% were initiated after being contacted by Trading Standards which had received complaints from consumers.

Accidents

Of the product recalls examined in-depth, 35% had involved accidents to the consumer, suffering electric shocks, scalds or from something falling on them, all of which involved a complaint to the manufacturer or importer or retailer that sold the product. There was also one fatality. 6% involved damage to property by fire or overheating.

Made aware by service or returns

Service engineers sometimes make the quality assurance department aware of a recurrent fault, or monitoring service levels by the department itself may highlight the risk. Analysis of returns records can also alert the Quality Assurance department to a potential problem.

Discovery in-house

Occasionally the engineers or quality controllers in companies will find the fault themselves before any customer complaints arise and initiate a recall.

Official body ruling

On a few occasions external pressures by official bodies trigger the recall as the product is thought to present an unacceptable level of risk to the consumer. (This category excludes recalls where the trigger is a customer complaint to Trading Standards which is included in the above category - customer complaints.)

Who decides to recall the product ?

In 57% of cases it is the Managing Director or General Manager who takes the decision to initiate a product recall, because of the commercial implications of the recall, the potential damage to market share, company and brand image. Quality Assurance Managers and Technical Managers were particularly mentioned as the initiator within large retail groups.

Who is involved internally in the recall management/organisation?

Usually a small team involving directors and managers is set up with specific responsibilities within the recall programme. In about 70% of recalls the General Manager, Managing Director, Sales or Technical Director is nominated to lead the recall, and in the remaining 30% the recall is led by the Quality Assurance or Technical Manager.

Directors

Sales Directors, Research and Development, Logistics, Communications, Divisional Product, Marketing and Technical Directors were the most often mentioned directors involved in the overall management of the recall team. The Company Secretary and/or internal legal department is also involved in terms of the legal aspects of the product recall. The directors are particularly involved in any action required, where the faulty product has been supplied to them by another company, both in gaining acceptance of responsibility for the fault and financial support for the recall programme, and lost sales, from the supplying company.

Middle management

The actual day-to-day running of the recall programme is often the responsibility of the Quality Assurance Manager, Technical Services Manager, National Sales Manager or Product Manager, supervising others in QA, customer service and marketing.

Submanagement

The customer service department usually handles customer calls, if enquiries to the telephone helpline are direct to the company, and frequently all members of the company are briefed to handle any queries both inside and outside working hours. Transport and logistics are involved in the receipt and management of returned goods. The finance department may also be active in controlling despatch of refunds to the consumer.

Who is involved externally in the recall programme?

Press agency/PR company

56% of companies contacted a press agency or a PR company to advise on the press coverage required, wording of the recall notice, booking space for the safety notice and in some cases handling media enquiries.

Solicitors

28% of companies mentioned contacting the company solicitor to advise and recommend on the legal situation and the wording of the recall notice or press releases.

Trading Standards

TSOs were contacted by 25% of companies both to advise them of the situation and to seek advice on how to handle the product recall.

Distributors, wholesalers and retailers

Distributors, wholesalers and retailers were contacted by 16% of companies interviewed (all suppliers), to advise them of the situation. Where possible, retailers are often asked for details of any customer list, which can sometimes be derived from credit card transactions.

Call centre

16% of companies said that they used a specialist external telephone handling company to handle customer calls, with a proposed script for them to follow.

Insurance companies/loss adjusters

Insurance companies were also mentioned by 16% of companies.

Testing laboratories

10% of companies mentioned the use of testing laboratories to assess the likelihood and frequency of the fault.

Presence of a recall methodology statement or procedure

Of the 32 companies interviewed face-to-face, nearly two thirds had a methodology statement or procedure to follow when initiating a product recall programme. Five of these companies had experience of only one recall and had not had a recall procedure at the time of the product recall. They then introduced a recall procedure statement based on their experience.

Typical product recall procedure initiated by a manufacturer or importer

The key points below are drawn from 24 face-to-face interviews with manufacturers, importers and other suppliers and inspection of methodology procedures where released to the research team.

1. A potential risk is identified by customer complaints, notification of accidents or injuries, service returns, or QA checks at manufacturing, and investigated as to whether it is valid.
2. A full risk assessment is made to assess how great is the risk of an accident occurring, bearing in mind factors such as the number of relevant products sold, how many are thought to be faulty, when the product was sold, whether it is still on the market, and the nature of the fault and risk. The level of risk varied from 0.04% of 160,000 items (which were in the batch that potentially had the fault) to 100% of 30 items sold. Each case was assessed individually to determine which were the over-riding issues affecting consumer safety. Even where there is a low chance of an accident happening, (ie a single injury or death), companies take the consumer safety hazard very seriously.
3. A team is established, or brought into action, immediately the risk has been assessed to monitor and control the recall, with specific tasks and responsibilities and a team leader.

4. Where possible, identification of the batch number and date of those sold which are faulty or batches and dates within which the faulty ones were sold and the retailers who received those products are determined.
5. Sales of the product are halted, stocks are frozen both in the manufacturer's and/or importer's warehouses and at their distributors, wholesalers and retailers who are advised of the potential problem as are others such as trade associations and Trading Standards.
6. A decision is taken whether to replace or modify the product or whether to offer a refund. This will vary, depending on the type of fault and the product concerned. It will also be decided whether any incentive, such as a money voucher or upgrade, will be used to encourage the consumer to respond.
7. For certain items, particularly high value products, details of credit card purchases and guarantee/warranty details may be available to form a database of consumers who can be contacted directly by personal letter.
8. Within 2-3 days, the recall notice is designed, where possible including a picture, details of the serial number, batch number, dates when it was sold, description of the hazard, and with instructions for the consumer to follow. Safety notice space is booked.
9. A script is written for in-house staff and/or an external call handling centre to use when handling enquiries from the consumer. All staff are briefed about the situation and how to handle any enquiries, whether or not they are likely to come into contact with the consumer.
10. After the initial returns or telephone calls following the safety notice, the frequency of consumer contact falls off significantly. Companies then assess how many products have been received, and if they are satisfied with the achieved recall rate. About 15% of companies interviewed followed up with a further series of safety notices, usually where the risk was very serious and/or where the company believed a very poor recall level had been achieved.
11. A file detailing, for example, the action taken, level of response, cost of the recall programme, is kept for future reference.

How the recall procedure varies when undertaken by a retailer

The retailer usually initiates a recall programme when it is the sole outlet for a product or if it wishes to support the supplier due to the seriousness of the risk. Retailers follow the same or similar procedure outlined in the previous section and, in addition, usually initiate the following three points which are specific to their operation as retailers.

1. Once it has been decided that a product recall is to be made, stores are usually notified by EPOS/electronic mail so that all tills have an alert the next morning when the stores open for business.
2. In-store notices are issued to each store to be put up in a prominent position, often on the main doors, and may well be left in place for 4-12 months.

3. Some retailers mentioned that they issued a form to be completed with the consumer in the store for each transaction in relation to the product recall action (ie refund, replacement or modification) and returned to head office in order to monitor the recall programme. However this was seen by some respondents as difficult to control because many shop assistants forget to fill in the forms.

Setting targets for the recall of a consumer product

Just over a third of product recalls studied had a target set of the number of products companies hoped to replace, modify or recover them from consumers. Most companies however hoped that they would achieve as high a recall as possible but had little concept of what they could expect to achieve, although low price items, (ie less than £10) were not expected to have high recall rates, because experience has shown that it is extremely difficult to motivate consumers to 'bother' to return the product. Also, consumers who have heeded the safety warning may choose to throw a low cost item away. And this is almost impossible to trace. Even if the perceived risk is high many consumers would simply throw the product away. Most targets for low value products (where targets exist) are between 10% and 30%.

Where a target was set, it was usually quite high at 60 -100%. Three quarters of these were domestic appliances, white and brown goods, and over half of the products cost at least £50.

However the actual success rate varied widely by the sort of product, its value, how old it was, the level of risk known to the company and the risk perceived by the consumer. The frequency with which the product is used can also influence the recall success rate.

The methods used to inform the consumer

National press notices

In the UK the national press is read by about 81% of the adult population and businesses often see this as potentially the most effective way of reaching consumers, particularly where address of purchasers are not available. Almost all product recall programmes (82%) included the use of safety notices in the national press, whether initiated by the manufacturer/importer, sole retailer or several retailers. Those which did not use national press were either items with a low risk where the consumer was informed by in-store notices alone or where there was a customer list of all purchasers of the product who were approached by direct mail with a personalised letter.

In-store notices

50% of product recall programmes included the use of in-store notices to alert consumers. These are used not only where the product is sold by a sole retail group which initiates the recall but also when the supplier advises its retailers of the recall and is able to gain their support to supplement national press safety notices. The success of reaching the consumer depends on the type of product and how often the consumer is likely to re-visit the store.

Customer direct mail

This was used in 38% of recalls. However the success of these recall programmes is partly dependent on the availability of a list of customer names and addresses. The success is also dependent on the type of product, its age and cost, and the perceived level of risk by the consumer. An expensive item used regularly did not necessarily give a high response rate, even though the consumer received a personal letter, if the consumer thought that the risk was very remote.

Two thirds of companies interviewed did not have names and addresses available for the product they recalled. Where a customer list is available, half the companies had a full or extensive customer list, ie more than 60% of customer names and addresses, was available. These tended to be for an expensive item, used on a regular basis, where there was a purchase registration/warranty card which the consumer had returned to the manufacturer or importer or other supplier or retailer, and these had greater than average success rates. The other companies using customer lists had only partial lists available, up to 45% of customer names and addresses, and on the whole these recalls were less successful in terms of recall rates.

Regional press notices

About a third of recall programmes (32%) involved the insertion of product safety notices in regional press, again initiated by the manufacturer or importer and to supplement national press in regions where they have a strong presence or where there has been a particularly poor response to a first recall.

Press releases

About 18% of recalls included press releases, although most companies felt that this was given very little attention by the media and did little to assist in communicating with the consumer.

Consumer magazines

Inclusion in consumer magazines was mentioned in 6% of recalls to supplement national press, in-store notices and customer mailing. When used, respondents had a fairly positive attitude to consumer magazines, because they tend to state the basic facts rather than add any editorial comment, which might be detrimental to the recall company.

Consumer TV and radio programmes

These are generally avoided by companies involved in product recall programmes, as they fear the way in which the programme will handle the recall. However it was mentioned in 6% of recalls and had in those instances been handled well in the view of the manufacturers and importers concerned.

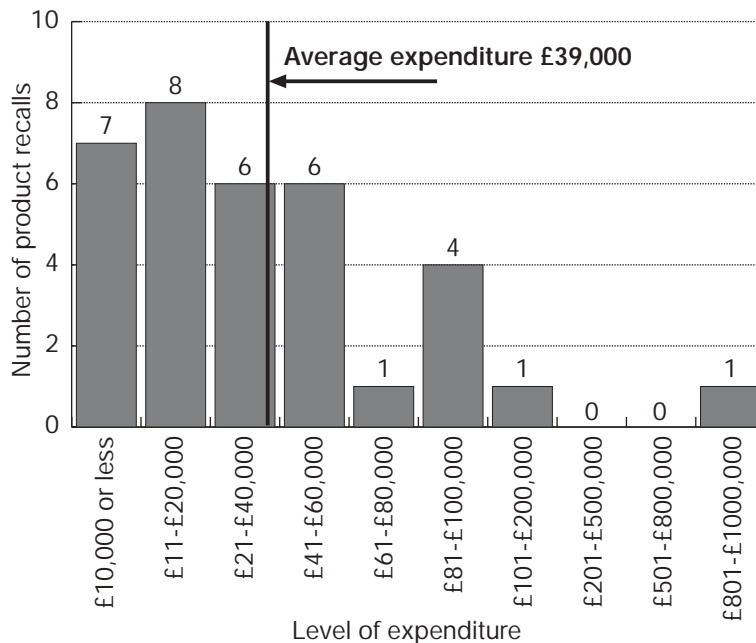
In-store catalogue

This was mentioned by one sole retailer, as the timing of the recall meant that it was able to include a product safety notice in its Christmas catalogue.

Television

This was not used by any companies interviewed. Cost is probably the main reason, although some respondents felt that the television was not an effective medium for clearly communicating product recall safety issues, as it is difficult for the consumer to absorb all the details of the product recalled and action they are asked to take.

Average expenditure on product recalls by manufacturers and retailers



Source: 34 product recall cases

The average expenditure on product recalls was £39,000 in the sample studied. One company spent much more (£900,000) than other companies, which was exceptionally high and has been excluded from the average expenditure to give a realistic figure. The majority of recalls involved an expenditure of less than £60,000 on media and customer mailings.

Few, if any companies interviewed, had any formal guidelines on how much expenditure was required for an effective recall programme. Most established what they felt would be required to recall 'as many products as possible', often following discussions with advertising agents or Trading Standards Officers for advice on what level of expenditure was required.

Low expenditure (ie £10,000 or less) was usually due to one of two reasons - either, the company is making a nominal recall and does not expect much interest from the consumer due to the low level of risk and/or low cost of the item, or the company has a comprehensive customer list.

For the former it typically involves a low level of expenditure on in-store notices rather than other media or nominal national press safety notices in one or two daily papers. The latter involves advising each purchaser of the recall by letter and, in two cases, one or two safety notices in the national press.

Medium expenditure (£11,000 - £60,000) typically involved press safety notices in the national newspapers and some local press. The number of safety notices placed increases with the level of expenditure from 2-3 papers to all national press at the highest level of expenditure. In-store notices and customer mailing lists were also used where possible.

High expenditure (£61,000 - £200,000 with one exception of £900,000) usually involved staggered and repeated safety notices in the national press, such as an insert in the Sunday papers followed by a reminder safety notice in the daily papers, together with regional press safety notices. In-store notices were used and customer mailing lists where available.

One company spent a much higher amount, £900,000, on repeated press safety notices and specific spots in the newspapers with the aim of achieving a 100% success rate, (compared with the 75% it achieved), as it did not know how many products sold were likely to be faulty and also wished to protect its position as market leader. Of course, ultimately the success rate achieved for any recall depends on consumers being convinced that they need to react to it. Inevitably, and almost irrespective of the hazard there will be a proportion of consumers who will choose to ignore a recall notice or may no longer possess the product.

The nature of the action required by the consumer

Most of the product recalls studied asked the consumer to return the item to the store, which is usually easily accessible to the consumer, or to the supplier. Suppliers often ask the consumer to telephone them first. This allows the supplier to check that the item to be returned has the correct model and batch number, avoiding unnecessary returns and also reassuring the consumer about the handling of the recall.

In other cases recalls were a mixture of giving the consumer the option of returning the item to the store or supplier or telephoning. One company was also contacting all customers directly. In 8% of cases other instructions were given - usually the fault is minor, and consumers are asked to check that a particular part is not loose.

In about a third of cases (32%) consumers are also told not to use the product, particularly for electrical products and also for childrenswear and childcare products, where there is a danger if the product is continued to be used without modification.

How stores and suppliers rectify the product defect

Refund - 34% of manufacturers, importers, other suppliers and retailers offer the consumer a complete refund on the defective item when it is returned to them. Products of low value, where no replacement is available, and no modification can realistically be made, are particularly subject to refund offers.

Engineer to call - 18%. These tend to be large domestic appliances such as washing machines and fridges where the consumer contacts the supplier who arranges for an engineer to visit to check the machine and make any necessary alterations or modifications.

Replacement - 15% of recall notices offer a simple substitute or identical replacement item without the defect. However discussions with manufacturers and retailers indicated that this is not always possible, particularly if the manufacturing process has to be changed once the fault is discovered or if the item is imported, and in these cases a refund is usually offered. Occasionally (about 20% of replacements) the supplier will arrange to collect the defective item from the consumer and provide a replacement.

Take in for free check - 8%. The consumer is expected to take the item, (typically a bicycle, pushchair and DIY tools), into the store or to a dealer for a free check, usually to check if a part is loose or if a defective part has been fitted.

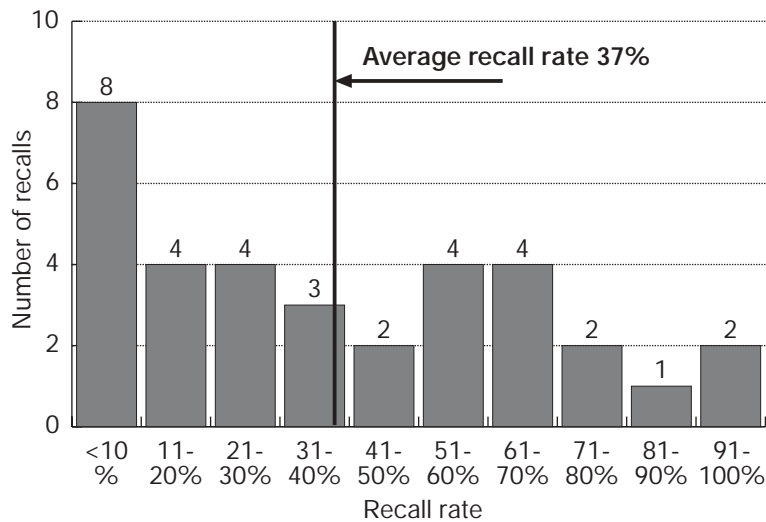
Obtain modification kit - 6.5%. The store will supply a modification kit that the consumer can fit themselves, for example on a piece of furniture or pushchair.

Refund or replacement - 6.5%. Large national retail groups are likely to offer a refund or replacement as the consumer prefers.

Replacement part fitted - 6%. These are often replacement parts for electrical appliances, where a switch, electrical cord or plug has been detected as at fault.

Other recall actions - Occasionally the supplier will check and repair an electrical item if the consumer sends it in, (3% of cases). In a very small number of recalls (1.5%), the supplier provides a voucher which can be used in a retail outlet to the value of the item. Very occasionally, (1.5% of cases), a new set of instructions is needed for the correct and safe operation of an electric appliance.

Effectiveness of product recalls - the percentage of products successfully recalled



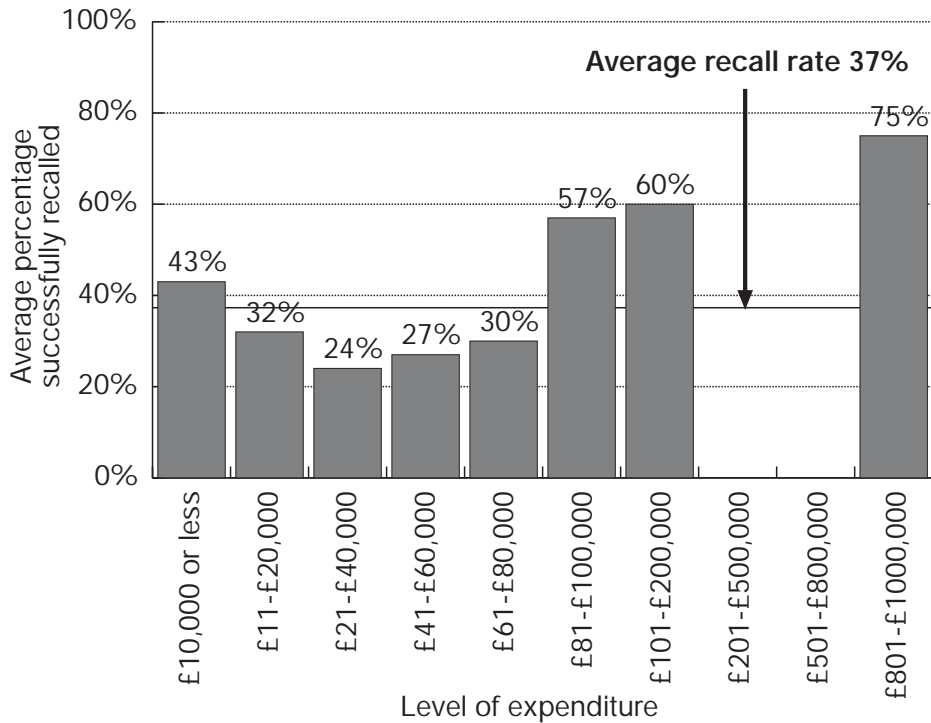
Source: 34 product recall cases

The response by the consumer to the product recall safety notice varied widely depending on several quite separate and distinct factors, for example the perception of the risk by the consumer, the age and value of the product, the communication media used, as well as the level of expenditure used on alerting the consumer. The main characteristics that influence the recall rate are highlighted by the items with the very lowest response rates by the consumer (less than 10%) and those products with the highest recall rate (over 50%).

The lowest levels of recall response rates (ie less than 10%) were often low cost items (less than £10) and where there was little perceived risk by the consumer. Most were toys and houseware items. Respondents also mentioned that they believe many low cost toys are not being used any more by the time they are recalled (either because they are broken or have been consigned to the back of the toy cupboard) which contributes strongly to low recall rates being achieved. Experience amongst manufacturers and retailers shows that it is extremely difficult to motivate consumers to return items that cost little (ie less than £10). Even if the perceived risk is high, most can't be bothered to return it and simply throw it away. If the consumer also perceives the risk to be extremely low, many take the stance that it won't happen to them and simply ignore the recall notice. In addition, recall rates of old products can sometimes be significantly reduced, if they have worked well for several years, and consumers see nothing wrong with their product and therefore take no action.

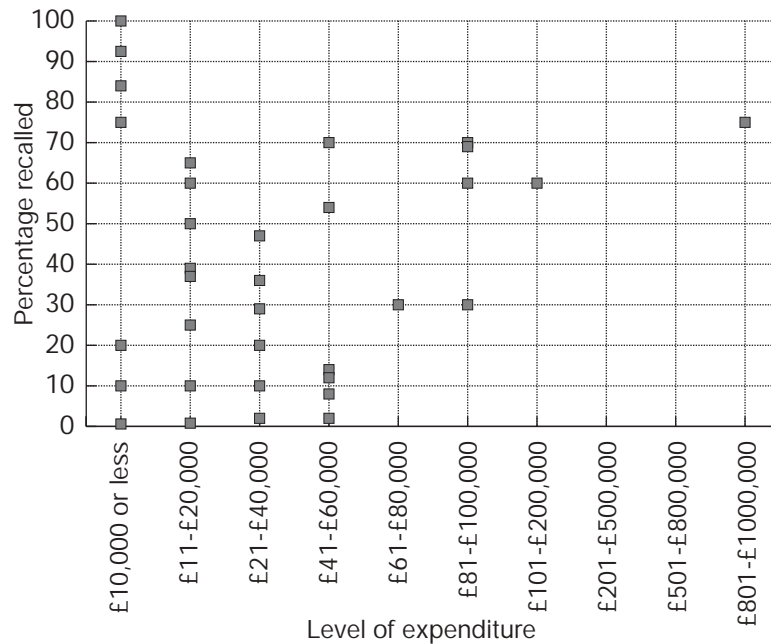
The highest levels of recall response (greater than 50% recall rate) were the result of several different factors. Most had high perceived risk levels (ie electric shock, fire and injury to children (including 1 fatality)). Five of these 13 cases benefited from comprehensive mailing lists. A further four involved very high expenditure on press safety notices (£85,000 - £100,000+), involving staggered and repeat safety notices in all the national press and

some regional newspapers. Three cases involved risks to children, of which two received a high level of press editorial, one of which involved a fatality. One exception was a toy product recalled just prior to Christmas when many of the original purchasers were visiting the toy store. In addition, they could pick up modification parts there and then, in immediate response to seeing the safety notice in the store.



Source: 34 product recall cases

The average percentage of product successfully recalled is 37%, which excludes one recall case that had an exceptional expenditure of £900,000. As mentioned earlier, the recall rate is not dependent on the level of expenditure alone. Within all expenditure bands below £60,000 there is a wide range of recall rates (for example within £41-60,000 the recall rate varies from 2% to 70%). Details of how the recall rates varied within each band of expenditure can be found in the chart below.



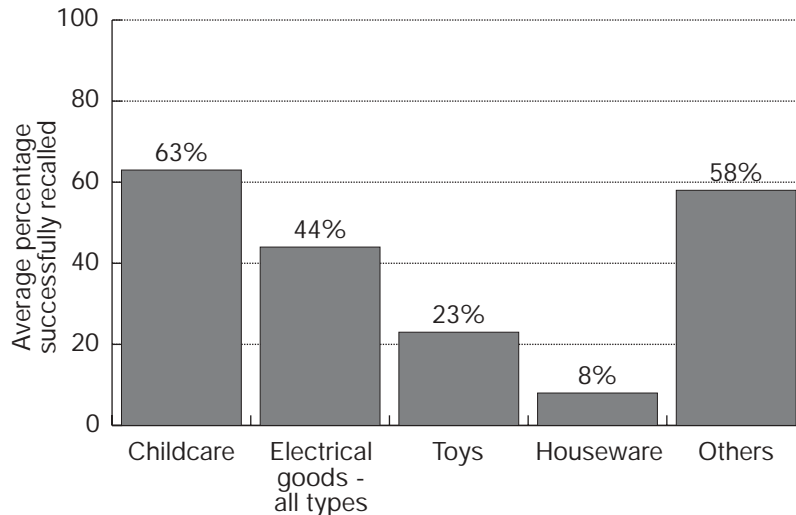
Source: 34 product recall cases

Clearly increasing the expenditure (wider range of newspapers, staggering recall notices and repeat the safety notices) can increase the recall rate, but other factors such as the cost of the product (ie if < £10), low perceived risk and a poor message can limit the number of products that are recalled.

At the lower expenditure levels, the average recall rate increases as the expenditure falls below £20,000, rising to 43% for expenditure less than £10,000. This is mainly due to the availability of customer lists for some of the products recalled. These generally achieved high recall rates and countered low recall rates where lists were not available. Also some (about a third) of the products achieving low recall rates could probably have improved the recall level if the expenditure had been increased, but the remaining two-thirds would probably not have been able to increase recall rates significantly, mainly because they involved very low cost items, for which it is very difficult to motivate consumers to respond.

The average recall rate slowly increases from 24% to 30% as the expenditure increases from about £30,000 to about £70,000, and then rises significantly to 57-75% for expenditures over £80,000. The rise is partly a result of more extensive press safety notices, but not entirely. For expenditure between £20,000 and £80,000 the range of recall rates in each band varied widely (2 were over 50%, 4 were 30-50% and 7 were less than 30%) and involved products with both high and low perceived risks, as well as five very low value products (< £10) for which the research shows consumers are less likely to respond. For expenditures over £80,000, five of the six cases had recall rates of 60% or higher and all involved high perceived risks (2 electrical shock and 4 fire).

The rate of success by type of product group



Source: RoSPA, ITSA, face-to-face interviews

Childcare and electrical goods achieved the highest recall rates, whereas low cost items such as houseware and toys achieved the lowest rate of success.

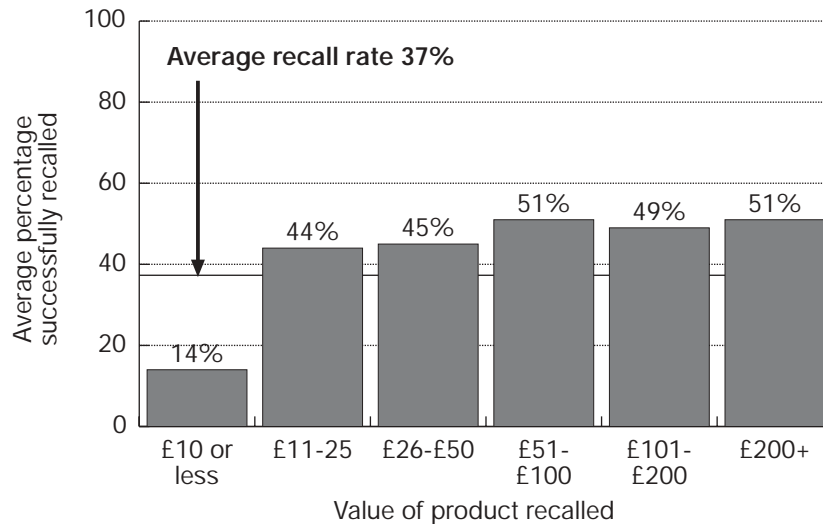
Childcare items have the highest average recall rates, reflecting consumer concern on child safety, as these products are used by parents regularly over a period of time.

Electrical goods The general public perception of a high risk of overheating, fire or electric shock, and possibly death, leads also to a higher than average recall rate.

Toys The low average rating of 23% contradicts the above rating of 63% for childcare items. However, two other key factors suggest that this is because children can quickly break toys, especially those of lower value, or may no longer be used after a few months and the cost of most toys recalled is very low (less than £10).

Others This includes recalls for clothing, furniture, gas appliances, leisure, garden equipment and other products and have been grouped together as there was one example of a product recall within each of these categories.

The percentage successfully recalled by the value of the product



Source: RoSPA, ITSA, face-to-face interviews

Products costing less than £10 are likely to achieve very low recall rates. Items costing more than £10 achieve fairly similar average response rates, ie between 44-51% increasing slightly as the cost of the product increases.

£10 or less - with an average success rate of 14%, most recall rates for items costing the consumer £10 or less were between 0.6% and 12%. These were low cost toys or houseware items where there was a low perceived safety risk and therefore few consumers bothered to return the item. One product (a childcare product) achieved a high success rate of 75%. This is in line with the general research finding that consumers are more likely to react to childcare recalls. If this exception is excluded, the recall rate falls to 6%. (Sample 8 recalls.)

£11- £25 - with an average recall rate of 44%, the lowest recall rate of 12% was achieved for a specialist DIY tool which was thought to be bought by the consumer and then rarely used. The highest success rates of 65% and 75% were where there was a risk of the consumer receiving an electric shock from the item. (Sample 8 recalls.)

£26- £50 - with an average recall rate of 45%, the lowest percentage recalls achieved were 8% and 10% for children's toys where there was a very low perceived risk. The most successful recall rate (92.5%) was for a large children's toy where the timing of the recall was near Christmas and therefore many consumers were made aware of the product recall as they visited the store to do their Christmas shopping. (Sample 4 recalls.)

£51- £100 - an average recall rate of 51%, with recall rates of 25%, 54%, and 75%. This group includes the product with the highest expenditure on recall of the 34 product recall cases. (Sample 3 recalls.)

£101- £200 - an average recall rate of 49%, the lowest achieved recall rate at this price level was 20% for a household appliance which was considered quite successful as it was an expensive purchase with a low perceived risk. The highest achieved (100%) was for a leisure item where the risk was identified very shortly after the product had gone on the market and therefore very few items had been sold. In addition all purchasers had completed a registration card, enabling the company to contact them easily. (Sample 5 recalls.)

£201+ - an average recall rate of 51%, this category is made up largely of expensive white goods and other costly electrical items. The poorest recall rate achieved was 20%, where the batch affected was 9 months to 2 years old when the risk was identified. The highest rate (84%) was sold by one retail group and a good customer list was available for contacting purchasers individually. (Sample 6 recalls.)

Benchmark for success as perceived by manufacturers, other suppliers and retailers

Manufacturers, importers, other suppliers and retailers were asked, "What is the benchmark for success in terms of the percentage recalled?"

Most companies had experience of a single recall and had little or no knowledge from which to set a benchmark of success, and set a figure higher than they achieved in their own recall. The average benchmark for success set was 46% compared with the average recall rate of 37%. Large retail groups who had experience of a number of recall were able to compare success rates across several recalls and set more realistic targets by learning through experience. Anticipated benchmark levels fall into two categories.

Low benchmark recall rates (< 30%). Very low value items (< £10), products with very low perceived risk (by consumers), and also items sold some time ago were seen to warrant a low benchmark, typically 10-30%.

High benchmark recall rates (> 50%). The key factors influencing an anticipated high recall rate (typically 50 -100%) were the availability of a comprehensive customer list and a high hazard risk perception by the consumer, and to a lesser extent, high value products and products that are used frequently. Large electrical appliances were cited as examples in which several or all of these four factors influenced the recall rate.

Other factors were also mentioned as usually used by companies to judge the success of the recall programme. In order of frequency of mention, these were:

- no loss of business or image; protection of the brand, market share and image
- lack of complaints after the recall;
- no injuries or deaths once the recall is initiated;
- recall considered satisfactory by Trading Standards;
- no adverse press comment;
- no alarm among consumers.