TU Ilmenau IEEE ISCE '02 23-26 September 2002 Radisson SAS Hotel Erfurt/Germany

Copyright 2002 IEEE. Reprinted, with permission, from Proceedings of the 2002 IEEE International Symposium on Consumer Electronics (ISCE'02), Ilmenau, Germany, September 2002, pp. J-1 – J-10. ISBN 3-910159-48-6.

THE CONSEQUENCES OF ELECTRICAL SAFETY FOR IMPORTERS OF CONSUMER PRODUCTS

Jyri Rajamäki and Merja Rusanen

Safety Technology Authority P.O.Box. 123, 00181 Helsinki, FINLAND

jyri.rajamaki@tukes.fi

ABSTRACT: This study examines the marketing channels importers of electrical consumer products use, when they procure new products for their import ranges and how importers market their products in Finland. The study sets out to determine if there were any identifiable common factors in operations, which might make it possible for dangerous products to enter the market. The aim of the study is to establish if there are any prospects for developing new pre-retail stage market surveillance methods.

A structure of trade and its channels for the marketing of new products have been described. Of further interest were the factors, which had influenced their decisions when selecting new products for their product ranges. We wanted to clarify, how importers reacted to new products and to new manufacturers, and also, to establish how important continuity of business relations was to them. Attention was also given to the problems arising when importing electrical consumer products; also the factors importers consider as being the greatest risk elements. Also of importance was establishing how marketing channels were created and the way they were used in the domestic market. Further, we sought to find out what criterion importers use when considering both the wholesale and retail sides of their businesses and also what responsibilities they, as importers, felt they had.

KEYWORDS: marketing information, market surveillance, product safety enforcement.

I. INTRODUCTION

A. The Market Surveillance of Electrical Products in Finland

Manufacturers are responsible for the safety of products, whilst the relevant authority, using the available market surveillance means, attends to the general safety and conformity of products offered for sale [1]. The market surveillance of electrical equipment in Finland is attended to by the Safety Technology Authority (TUKES). Product distribution restriction decisions made by TUKES are based on market surveillance test findings. The decisions are directed towards Finnish importers with regard to non-domestic products. In possible cases where the importer might no longer exist, the retailer could be made liable for carrying restrictions and testing expenses.

The EU Directives on electrical equipment have been fully implemented into Finnish legislation. Safety requirements for electrical equipment are laid down by the Low Voltage Directive (LVD). The surveillance of electrical equipment in Finland is based on the rules and requlations provided by the Finnish Electrical Safety Act (410/1996) and other statutes given by virtue

thereof. On our web pages (www.tukes.fi), you will find the original Directives and the relevant application rules, as well as the Finnish electrical safety statutes. The official information is given in Finnish and Swedish, but English translations have been made for the most important statutes and guides.

B. Research Method

This study is a piece of comparative qualitative compares how different which research. importers procure and promote electrical goods onto the market. Empirical research material consists of 1) TUKES's database for product enforcement, ²⁾ semi-structured face-to-face interviews and 3) information supplied to the CIRCA service. CIRCA (Communication and Information Resource Centre Administrator) is the European Commission's extranet tool, tuned towards Public Administrations needs. It enables a given community (e.g. committee, working group, project group etc.) demographically spread across Europe (and beyond) the ability to maintain a private space on the Internet where information, documents, share participate in discussion forums and various other functions.

TUKES's database for product enforcement contains information on over 10,000 market surveillance cases from 1994 to the present. In recent years, unsafe products have been especially found in power supplies for PCs, battery chargers for mobile phones and luminaires. Luminaires were selected to be the subject of this study because they have been one of the most problematic product categories througout TUKES's operational time. Under luminaires we looked at luminaires with mains transformers, lighting chains, roof lights and also wall, standard, table, flood and hand lamps.

Interviewed importers were selected from the database so as to both represent companies ¹⁾ whose products had had problems and ²⁾ those whose products had had only a few minor safety problems. The database unfortunately proves to be inadequate with regard to information concerning 'good' entrepreneurs since if market surveillance testing discovers no faults, then the bodies responsible for the product in question are not identified in the database.

A total of ten Finnish luminaire importers were interviewed so as to establish their methods of operation. Table I gives background information about interviewed importers and how many and what kind of market surveillance measures TUKES has directed towards them with regard to the luminaire categories studied in this paper. The

cases of these ten importers encompassed 35 % of all cases within studied luminaire categories. With regard to sales bans, 38 % of all those issued could be found amongst the importers interviewed.

Interviews were structured around 30 questions. The appointments with the importers were suprisingly simple to arrange and only two companies refused to be interviewed because of lack of time. The duration of each interview ranged from between half an hour to one hour.

Most of the interviewed persons had been active in the field of electrical engineering (EE) and luminaires for dozens of years. The shortest experience in the luminaire field was three years, but the interviewed individual had had 13 years experience in EE. Two of the interviewed had been active for more than 30 years in the field of EE. The experience of the remainder of the interviewed persons ranged from 7 to 20 years.

Following the closing of this study, the tenability of some of the matters identified from interviews were examined utilising information supplied to the CIRCA service.

II. THE PURCHASING METHODS OF IMPORTERS

Table I: Background information on the interviewed importers (a - j)

	Place of Product range		Measures ⁱ :
	domicile		Sales bans ⁱⁱ /
			Cautions
a	Helsinki	Architectural luminaires ^{III} , home luminaires	1 / 1
b	Helsinki	Ornamental luminaires, Christmas lights, technical luminaires iv	6 / 22
c	Karkkila	Christmas lights, wall brackest for outdoor use. The company also has	0 / 4
	v	some of its own manufacturing in Finland	
d	Vantaa	Halogen lamps, roof lamps	14 / 14
e	Vantaa	Halogen lamps (mainly work place), outdoor luminaires, ornamental and	4/3
		table luminaires	
f	Lahti	Christmas lights, luminaires intended for schoolchildren	14 / 8
g	Tampere	Halogen lamps, technical luminaires iv, portable illuminators, night lights	28 / 15
h	Espoo	Luminaires for outdoor use, fluorescent lamps, interior luminaires, spot	1/6
		lights	
Li	Hyvinkää	Christmas lights	47 / 19
j	Tampere	Wall lamps for fixed installations, site ilumination for outdoor use or for	10 / 7
		building sites; had earlier imported halogen lamps, but not any longer	

Numbers of measures related to analysed luminaire types; more measures relating to other product groups may be in question.

Here 'sales ban' includes all distribution restriction decisions.

Luminaires which architects design themselves or select from product catologies for certain projects.

Luminaires which are intended for fixed installations, such as office, kitchen or bathroom luminaires.

Part of a Swedish concern.

A. Structure of Trade

Only a small proportion of the imports of those interviewed come from anywhere else other than the Far East. One exception to be mentioned is the technical luminairs sold in Finland, of which 25-30 percent is of domestic manufacture. One importer even recorded current sales of 75 percent for domestic luminairs, but he mentioned he was activily seeking new overseas contacts.

One importer has his own factory in China, from which almost 80 % of the low-end Christmaslight sales of this company originated. Some importers use factories in China to tailor-make their product orders and mainly use this one source to import through. Another example shows one importer as having a branch office in China which employs three locals to seek out new products and manufacturers and to make sure, that purchased products delivered are as agreed. And yet another importer said that he was a partner in a Chinese factory. The management of the factory believes that the importer in question will bring them new models which can be copied and which then, might in future, have a market potential elsewhere in Europe.

Earlier, the old established, far eastern trading houses were decisive factors in business, but nowadays, their overrideing importance and influence have become less. One importer estimates that the trading houses participate in 70-80 percent of foreign trade. According to him, the trading companies take care of documentation financial transactions and work interpreters between the factory and importer. One of the ten importers interviewed has a trading house in Europe. The European agents of this trading house reside in the Far East. They buy and inspect the products where they are made.

Three importers have their own agent in the Far East. These agents also serve other importers. One importer stated that the work of his agent included acting as an interpreter and passing on to the factory information about the product requirements of Finnish importers. And yet, another importer believed that his agent's main task was to inspect products prior to shipping. To do this an agent must have a technical education. And also yet another importer said that his agents responsible for seeing were requirements, but how this was done was not made clear at the interview.

Four of the interviewed importers stated that they did not use agents. As they consider them to be usually like salesmen who did not have enough expert knowledge. Many importers today, already have good, direct contacts with production plants and this has proven an important factor since having fewer middlemen means information gaps are rare.

Finaly, only one importer stated that he did not import luminaires directly from the Far East. This importer purchases his products from Europe, mainly from Germany, although the region of origin for his luminaires is in the Far East. According to him, it is possible to buy smaller lots from Europe and so risks are smaller than in importing directly from the Far East.

B. Market Channels for New Product Types

During this study, it became apparant that product fairs were identified as places at which to find new products. All those interviewed found the fair as the most important contact route. At a fair one can see the new models and designs of luminaires, and, also, the latest trends. The importers interviewed attended European fairs in Germany, Italy and Sweden, and in the Far East, fairs which were held in Hong Kong, Taiwan and China. One importer informed the interviewer that he even visited fairs in the USA.

When a good business relationship is flourishing, importers receive lots of information about new products. Existing customers are the first to hear from factories when new products are being developed. Occasionaly, manufacturers trying to enter the Finnish market make first contact directly with Finnish importers.

An importer is loyal to his supplier when it is in question of a sole agency in Finland for certain luminaire types or when work is done in the name of a good principal-client relationship. So very often, the importer tries to find suitable luminaires for the Finnish market from among his principal's products. An importer can have more than one principal-client relationship. These relationships typically last a long time.

Factory visits, also, gained information about novelties and coming trends. Either, the factories send their agents to Finland, or, Finnish importers visit factories in order to see novelties offered at factories.

The question of the Internet came up in interviews, too. Five of interviewed importers

mentioned that they use the Internet for looking for information and making contacts. According to one importer, in the future, the Internet will make the checking of details concerning products increasingly easy and quick. This company already uses a product-database, to which customers have access through user codes. Through the Internet, customers are able to search for and check information concerning products. One importer said that, at one fair, he had received a CD-ROM, which showed the product selection of the factories, which were represented by trading houses in the Far East.

Two importers also mentioned in interviews the commercial departments of embassies as a source for contacts. These departments of embassies for different countries, mainly European, make contact with importers. Embassies try to assist their own country's manufacturers as imports from the Far East have increased so significantly.

Some inquires are made based on catalogues, and sometimes, following some clarifications, they even lead to business. Professional journals, contacts through recommendation and contacts through the Finnish Electrical Wholesale Federation were each mentioned by one importer, as well as the inter-cooperation of Nordic countries.

One importer had its own product development unit whose designers did their homework at fairs, seeking out trends. However, they mainly design their own luminaires or use outside designers.

C. Factors Which Have an Influence on Decision Making

According to interviews, the factors which have the biggest influence on taking into stock decision are commercial value and the price of the product in question. Novelty, a good profit margin and suitability for the company's product line are just some examples of important factors. Product quality, approvals and certifications are also mentioned as important.

Big volumes are important for some importers. Especially, in the Far Eastern trade, volumes have great importance because a container is the smallest unit, which is profitable to export from there. On the other hand, volumes have influence on the credibility of an importer and through this, on the price of products.

D. Attitudes towards New Products and Manufacturers

Many importers begin arrangements for the import of a new luminaire type by first asking for the declaration of conformity document for the luminaire in question. For some importers, it is sufficient if there is the CE marking on the product. If the manufacturer can also give a certificate, it adds to the credibility of the manufacturer. One importer said that if the luminaire has a certificate only from the certification body TÜV, the cover page is not enough, and the whole test report must be included. Instead, with certificates given by other European certification institutes, the cover page is concidered enough.

When responding to the question about what they checked on the certificates, the answers varied a lot. For some importers, it was enough that the certificate was in existence. One importer commented that when engineers investigated and authorities accepted the product that should be enough. Another commented that he was not going to go through different codes, because it was too difficult. But there were also importers, who checked the certificates more carefully. But through experience they had noticed that manufacturers could deliberately cheat them. A luminaire could have a certificate, but if you read it carefully, you can find, for example, a mention that neither the waterproof tests nor the temperature rise test had been made. These features have proved to be typical safety weaknesses in some luminaire types identified by the Finnish market surveillance authority. Some importers said that they checked that the certificate was meant just for the luminaire in question, and that the correct standards and manufacturer's name are mentioned.

All importers seem to have the same attitude to new manufacturers. The normal practice is for importers to ask for factory models, which they then check in Finland, at least visually. First of all, the durability of the luminaire in normal use situation will be checked. An experienced importer of luminaires has learnt to check the critical points of luminaires, which are usually connected with electrical safety and where the potential problems can be found. One importer said, that when he opens a luminaire he can immediately see, if the manufacturer has known, what he has done. The same importer mentioned

¹ Some importers mistakenly supposed that certification bodies are some kind of authorities

that if the manufacturer had not contracted out the testing of products anywhere and the manufacturer could not prove any quality system for production then he did not take this manufacturer's products into his sale range.

Two importers demand that manufacturers must have some kind of quality control system. The general functionality and management level of the factory, and economical resources are very decisive factors for two importers. If they noticed that the company did not have sufficient economical resources to stand by their products, or if the production methods were out-of-date, then the manufacturer was automatically disqualified from the competition.

Three of the importers use the Finnish certification company SGS Fimko Ltd. when estimating the relevant requirements of products. The importers stated that the application for certification marking for luminaires to be imported was too expensive and the system too slow. On the other hand, two interviewed importers said that 90 % of their Christmas lights had been tested and certificated by SGS Fimko Ltd.

One way to ensure the quality of imported products was to handle business through the letter of credit system. Two of the importers interviewed mentioned that they usually used a letter of credit with new manufacturers. So, the manufacturer could be sure to get payment for his goods before delivery, but that he did not get payment until the terms of letter of credit had been fulfilled; that is when the importer had checked the shipment and could confirmed as being correct.

The corporation, to which one interviewed importer belonged, has the ISO 9001 quality system in their factories in China as well as in Poland. The quality of products is ensured through having all components and small parts tested separately. From these parts, dozens of different products are assembled.

E. The Importance of Continuity in Business Relationships

In interviews, the importance of the continuity of business relationships was stressed especially with regard to the Far East trade. When the importers have found suitable factories, they try to keep them. Business relationships grow step by step and confidence between the partners grows bit by bit. There is a lot of supply in the Far East, and for that reason the continuity of relationships is of great importance for manufacturers as well. According to one importer, business relationships have a certain course of life, which can last for years, even dozens of years. With some manufacturer, the business first grows, then in some day, it goes down, and finally it is over. This phenomenon can be especially identified with so-called trend products. With technical and architectural luminaires, trends are more long lasting.

A characteristic of the Chinese came up in many interviews: A Chinese person never says no! For example, if you try to get the price lower, the Chinese will agree. But at the same time, the product will be changed for example by changing components for cheaper ones. One importer said it was not a good idea to bargain to keenly. This is what many importers have learnt the hard way. Some importers pointed out that personal contact, which originate from either visits from the Chinese to Finland or to visits of importers to the Far East, have a big influence on maintaining business.

Far Eastern factories have a hunger for success in the European market. This aids importers in being able to make agreements, which allow for goods to be returnable and recreditable when not having relevant European requirements met. But not all importers were able to benefit from their business relationships in this way if they were not well established.

F. Problems and Risks

When the importers were asked about the major problems concerning the import of luminaires, five of them mentioned problems concerning quality. The quality of products could vary a lot. Manufacturers could and did change components without telling anything about it to the importer. This risk grows a lot, if the price is beaten down too much. A problem is the control of European requirements, if and when products are renewed. Visually the luminaire might seem to be the same, and only the manufacturer knows if someting has been changed inside the product. This problem decreases with long lasting business relationships in which mutual confidence has been gained. One problem seems to be that luminaires originating from the Far East do not have uniform quality; quality varies a lot between production runs.

The certification marks and their credibility were questioned too. It is often not clear if the product coming from today's production line is similar to the bensmarked sample formerly tested and certified. Many negative comments were especially directed towards the TÜV certification mark. Many of the interviewed importers did not trust it at all. On the other hand, they mentioned that it was not the importers' duty to monitor certification institutes, and that they should be able to put their trust in those markings and what they implied. Many importers have such doubts about the TÜV-certificate, that manufacturers can buy it as required without testing products.

The interviewed importers stated that they thought Finnish market surveillance was too effective. They believed that the same products could be sold elsewhere in Europe, but not in Finland. Some importers had the opinion that Finland was such a small market area that manufacturers were not interested in whether or not their products fulfilled the demands of Finnish authorities. Active market surveillance makes foreign manufacturers think we have tighter demands than other countries, although here in Finland, we apply the same technical requirements as in the other EEA countries. Also Finnish importers believe that Finnish and Swedish market surveillance is the most comprehensive and demanding in Europe.

When the importers were asked about risks, the answers were partly similar to the answers about problems; the quality of products was found as one of the biggest risks. An economic risk linked to this feature is that importers might possible have to recall products from the market. Three of the interviewed importers found as the most significant risks were that someone might get killed or be injured. Although two of the three importers in question had quality manuals and quality systems in place, they did mentione that in spite of all precautions anything could happen and they could be held responsible.

When asking how importers have prepared for risks, four of them stated that they have product risk insurance. One importer checks the products in China himself, or asks for a sample for visual inspection. After checking, he gives permission for packing and dispatch of products. An importer takes account of potential risk by demanding certificates and by using common sense. Two importers always try to make an agreement that carries a product return clause if safety faults are detected in products.

III. HOW IMPORTERS MARKET THEIR PRODUCTS

A. Marketing to Wholesalers and Retailers

Table II shows the main customer segments of each interviewed importers.

Table II: The customer segments of the interviewed importers

importers					
a	Architectural luminaires: construction firms,				
	electricity contractors and wholesalers; who				
	partially retails to consumers directly.				
	Household luminaires: 80 - 90 % to retailers				
	which belong to franchising groups; $10 - 20 \%$ to				
	private retailers.				
b	All who are keen to buy, especially departr				
	store chains and hardware stores.				
c	Franchising groups and electricity wholesalers.				
	(The price structure is such that products carry no				
	price competitiveness for discount stores.)				
d	Discount stores, hardware stores.				
e	Only imports for own proprietors who are				
	discount stores.				
f	Discount stores.				
g	Hardware stores, retailers, construction firms,				
	electricity contractors, contractors' plant rental				
	agencies. Some products go directly to projects.				
h	Solely major customers such as wholesalers and				
	department stores.				
i	Discount stores.				
j	Department stores chains and hardware stores				
	(90 %); electricity wholesalers (10 %).				

When marketing other types of luminaire, the most common way is personal selling. Almost every import company has its own sales representatives travelling around Finland taking orders for products and showing previews of models to come. Having your own sales premises is also very common. But in our interviews, having sales premises for selling from was of prime importance to only one importer. This company also has sales representatives working on commission and they also represent the products of other importers too.

In one case an importer operated a purchase organisation for only his own owners (a 12-store chain). When this importer looks for new products at fairs, usually at least one expert from some of the owners accompanies him. This induvidual might be specialized in a certain type of luminaire and attends fairs that specifically interest him. When a suitable product range has been found, the importer organizes a purchase day for other owners, where they can inspect products and prices.

Other marketing communication methods are used occasionally. Advertising in professional and consumer magazines was mentioned only by one importer. Another importer thought that product catalogues were only support materials, which enable the making of personal contacts. Three importers used brochures in their marketing. Only three importers mentioned domestic fairs.

Networks in wholesale and retail sectors are often the result of long standing business relationships, although new ones are sought the whole time. But it came up in the interviews that importers want to discard themselves of small customers and get big customers to replace them. None of the interviewed importers was interested in one off trade deals. One importer has phone sales staff for small customers, because it is not profitable to serve them through agents. Furthermore, the phone seller does spot trade with those clients, who want to order more or are looking for a certain product. Spot trade is business, which is occasional and is not based on any agreement. The majority of these clients do not wish to belong to the regular customer list of the company.

Responding to the question, which asked if the wholesale and retail dealers were interested in the quality of luminaires in general, five importers answered that they were. Four importers said that there were questions about quality every now and then. One importer thought that the wholesale and retail traders supposed that all the products which they marketed were safe and of good quality. Wholesale firms in the electrical branch proved to be especially interested in quality. Occasionally, Declaration of Conformity documents importers speak of CE-approvals) or certificates are inquired about even in retail shops, and one importer said that he used them as sales arguments. One importer said that he supplies his agents with the certificates of all the products he represents, so they can show them if needed.

According to one importer, some retail dealers are very interested in how the luminaires are aproved and what aproval marks they have (the terms are incorrect; the importer possibly means certification marks). One importer said that retail dealers did not usually demand to see documents, but their agents have copies of certificates with them in the field.

The qualities of luminaire types, which are well known and have been a long time on the market, and the quality of technical and domestic luminaires, are not the issues here, since their quality is supposed to be automatically high quality.

Two of the interviewed importers mentioned that the sales bans for luminaires given by TUKES have had such an influence that retail dealers have, to an increasing degree, asked about quality and safety matters. However, it came clearly apparant from the interviews that many retailers prefer affordable goods, even at the risk of sales bans. The fact is that the importer is always responsible for the product judicially as well as financially, so this goes towards reducing the interest of retailers in the quality of products, especially in the discount store sector. According to a couple of interviewed importers, in spite of repeated sales bans and product withdrawals from the market, some retailers are quite prepared to buy the same products again.

B. Choice criterions of wholesalers and retail dealers from the standpoint of importers

According to the interviewed importers, the priority of wholesalers' and retailers' choice criterions varied between the delivery capability of the importer and the price, features and quality of the product. One importer thought that basic prerequisites of trading must be in order. Clients want to buy from a well-known importer who has been active in the branch for a long time, because the importer's products are better known and carry a certain image. The profit margin on these kinds of products is normally much better than on products from companies who are not so wellknown. Also, the variety of selections, the general level of prices and the outward appearance of packaging, with bar codes are decisive factors. Also, the natural importance of the personal chemistry between wholesaler and importer cannot be underrated.

According to one importer, delivery ability, reasonable prices and good models are factors which have most influence on the luminaire purchasing decision of wholesale and retail firms. Importers believe that their clients appreciate functional logistics and good price-quality ratios. One importer believed that, little by little, clients are going to learn that it is not worth giving too much consideration to a low price as being the most important factor in purchase decisions. As quite clearly market importer said, this

surveillance and the threatened possible extra work that a potential ban or withdrawal of a product might have, is a very effective influence. Prices must always be competitive and the importer must also be able to offer novelty. Furthermore, quality questions, the importer's delivery reliability and a fixed price for when the rate of the dollar changes, all go towards decisions when selecting importers.

One importer thought that only price was decisive. According to him, some customers were prepared to buy almost anything if the price was low enough. Yet, another importer mentioned that price was the most important factor even with good quality products which fulfilled requirements.

C. The importers' own view of their responsibilities

All the interviewed importers were clearly aware of the extent of their own responsibilities. Some criticism was directed at TUKES. There were suspicions that the market surveillance was not always fair because it was felt that the larger wholesale firms ware favoured at the cost of small importers who were monitored more strictly, to their minds.

IV. RESULTS

A. Summary of interviews

The study results concerning marketing channels Finnish importers use did not reveal many surprises. However, we would have expected the Internet to be used more. At this point in time, it seems not to play a very notable role as a marketing tool or channel.

Based on the material we got through the interviews, the marketing routes for most luminaires are similar. All importers mainly use the same channels, the most important being fairs and existing business relationships. We were unable to identify any form of marketing channel, which might be easily utilized for the development of new market surveillance methods.

The interviews revealed that almost all luminaires come on to the market via trade fairs. Both the market channels of products that follow safety standards and products deficient in safety seem to enter the market by the same route. Most contacts originate from fairs and almost all new products were found at fairs. But one common fact was

established: generally luminaires on the Finnish market originate from the Far East.

Due to long-standing business relationships, the quality of luminaire production in the Far East is improving continuously. But the situation concerning those manufacturers, who have no long-standing business relationships, is less predictable with regard to quality.

When making decisions to purchase, the most important factors seem to be commercialism and the price of the products in question. The issuing of copies of new European luminaire models and the consequent start up of their production at lower cost in the Far East, is commonly praticed by some importers, and the same kind of operation is not unusual among manufacturers, too. For some importers it is enough, that the product is a good volume selling product.

The clearest differences between the interviewed importers can be found in remarketing channels. Luminaires, which are intended for professionals in the electrical engineering field, are mostly made in Europe, and a percentage of the luminaires are domestic in origin. Electrical installation companies, electrical work contractors and electrical wholesale firms are considerably more interested in high specialist quality than the standard franchising groups and retail stores.

Importers find the biggest risks are in the ongoing quality of luminaires. Problems of quality arise, because the on-going quality of products from production lines varies considerably. A second problem factor is that manufacturers exchange and change components without informing the importer. Sometimes the reason for this unexpected component change can be that the importer has trimmed the price down too much!

B. Information gained from LVD notifications

Table III: LVD safeguard clause notifications

Country of	Number of notifications		
manufacturer	2000	2001	
EEA	64 (19%)	230 (56 %)	
Far East	94 (27 %)	62 (15%)	
Other	9 (3 %)	4 (1%)	
Unknown	175 (51%)	112 (27%)	

Based on notifications made by the market surveillance authorities of EEA countries, less than half of the non-conforming products, whose origin is known, were manufactured in the Far East. But this is not necessarily the whole picture. Many European companies have begun to subcontract out the manufacturing of their products, partly or fully to Far Eastern manufacturers. Also, many importers have begun to import products to Europe under their own trademark. In these cases, the home country of the trademark owner is considered to be the country of origin [1], and the person/company who originally manufactured the product is considered a subcontractor.

interviews brought out a common complaint from among importers; market surveillance was much too tight in Finland and Sweden. They thought that products, which received sales bans in Finland, were allowed to be sold elsewhere in Europe without any problem. number of LVD safeguard notifications made in 1999 tends to support this opinion; 62 percent of all notifications (173 notifications) originated from Finland or Sweden. But the situation has changed. In 2000 there were 332 notifications of which 44 % were from Finland or Sweden. In 2001, a total of 408 notifications were issued, and now 'only' 25 % originated from Finland or Sweden. The market surveillance of electrical products would seem to be improving in Europe, little by little. Nevertheless, it would seem from statistics that the market surveillance systems of some member countries are not in operation at all.

A lack of confidence in certification marks makes the operations of importers difficult. According to many interviews, the TÜV-certificate especially, carries very little trustworthiness. The statistics for 1999...2001 show that 25 % of notifications were directed towards products having certification mark(s). Of all the notifications having a mark, 69 % had the GS-mark and 50 % had the TÜV-mark. In 2001, only 4 % of notifications were directed towards products having certification mark(s). So, confidence in certification marks would seem to be increasing.

V. DISCUSSION

A. The trustworthiness and assessment of the study

The contents of the interview material might have been influenced by the fact that the study was made by TUKES. The interviewed importers might have given a too good image of their operation by unduly positively stressing safety factors. On the positive side, importers were open with criticism directed towards monitoring

authorities, even though, the interviewer was from one of them.

The interviewed importers are responsible for distributing luminaires to a very wide selection of the business sector. By selecting the importers to be interviewed, TUKES's database for product enforcement proved to be insufficient with regard to the fact that the importers of products which totally fulfill conformity can not be identified. However, the database did identify luminaire importers whose products only had slight defects and it also identified luminaires to which only small reactions were required.

The interview questions covered the operation area of importers rather thoroughly. The questionnaire was not feasable for one importer, because in this case the importer only imported his own corporation's production into Finland.

This study is a report on the marketing channels of importers when they purchase new products for their product ranges, and includes comments on their methods when remarketing products in Finland. The material collected in interviews consists mainly of matters concerning the import of luminaires. The results could maybe be generalized to also cover electrical lamps and tools intended for consumers, and also small domestic appliances whose production has mainly been moved to the Far East for cost purposes. These results cannot be generalized to include so called white products such as refrigerators and washing machines, because these machines are mostly imported to Finland from Europe, and to date, no notable safety failings have been identified in them.

The results of our market surveillance project for energy-saving lamps [2] supported many observations with regard to business practice in the Far East.

B. Proposals for action

It can be seen that the market surveillance carried out by TUKES has had a positive influence on the operations of importers with regard to safety. Without market surveillance, the quality of products on the market would be and would further become considerably worse. Particularly noteable was the 1997 adoption of the purchase charging and testing costs system, which strongly encouraged importers to exercise better self-surveilling since they themselves would carry the costs if faults were found.

Today, the responsibility for the safety and conformity of imported products belongs to the importer and also the costs of TUKES's sales strictures are mainly passed onto the importer. Only in those cases in which TUKES cannot get information from the retailer about the importer of the product in question, will the costs of purchase and testing be charged to the retailer. Responsibility for certified conformity should perhaps be expanded to different phases of trade. Wholesalers and retailers know that no costs for sales bans and other reaction methods will be charged against them, especially, if they buy their products from an importer, who has been in the business for a long time. If financial sanctions were to be also directed against wholesalers and retailers, it would surely have an influence on what kind and quality of products they would prefer to take into their sales ranges.

More information for and better orientation of retail and wholesele buvers would be worth investing in. The buyers in question purchase very extensive ranges of different kinds of products. So their knowledge of products in some product groups and also especially with regard to technical details of individual products, can understandingly be limited. giving information about the basic facts concerning the requirements for electrical products and what the mostly apparant safety defects in each product group are, buyers would be helped towards making correct selections with regard to safety.

Some importers have agreements with factories in the Far East which require that the delivered product must be as agreed on and fulfill all requirements. If products are not as agreed or there are some safety defects, then manufacturer must pay the costs, which are passed on to the Finnish importer. Also the importer should in all cases be able to return products, which do not meet conformity. The existence of this kind of practice should be made known to all Finnish importers. This is one of the most important factors with which the quality of products can be improved. In the long run, the application of this kind of practice will be a good thing for all parties (the manufacturer, importer, wholesaler, retailer, consumer and authorities).

The issueing and monitoring of certification marks should be made even more effective. Also manufacturers should have greater responsibility for continious high quality in production, which means that they do not only carefully manufacture the product to be tested so as to get certification, but also have to maintain the same high quality for the product throughout its production lifetime.

VI. CONCLUSIONS

Decisive factors for the safety and conformity of a product are with the first controls made by the manufacturer and in the carefulness and good sense of responsibility of the importer. An experienced and responsible importer can have a considerable influence especially on the quality of products imported from the Far East. The high number of manufacturers in the Far East leads to competition between factories. There is a ready buyer's market and factories are prepared to do nearly anything in order to keep their clients satisfied. From the study, it was apparant that the importer himself could mar the quality of his selected products through pushing for too keen a price for himself. It is clear that not all importers learn to respect or understand the emotive feelings behind Chinese business culture which does not permit the native manufacturer or his agent to be negative or say no, and so they say 'no' by concealing it in lowered component quality.

The general conclusion of the study indicates that the market surveillance of electrical equipment in Finland operates well. Inspite of this fact, dangerous products continuously find their way onto the market. Because Finland is a small market area, manufacturers are not interested in making products solely for the Finnish market. If market surveillance were effectively operational throughout the EU, manufacturers would be driven to invest more in the quality and conformity of their products. TUKES's methods and activities could be set as an example of wellmanaged market surveillance. It is reasonable to believe that improvements in TUKES's own market surveillance would not reduce the number of dangerous products on the Finnish market. TUKES must strive towards better and more effective EU-levels of market surveillance.

REFERENCES

- [1] European Communities, Guide to the implementation of directives based on the New Approach and the Global Approach. Office for Official Publications of the European Communities. Luxembourg, 2000.
- [2] J. Rajamäki and A. Kasanen, An EMC market surveillance project on energy-saving lamps in Finland, in Proceedings of the 2002 IEEE International Symposium on Electromagnetic Compatibility, Wroclaw, Poland, 2002.