A CONCEPTUAL PERSPECTIVE REGARDING PRODUCT LIABILITY

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Abstract:
This study analyses a current and highly important problem because we are in front of an unrecorded growth of the production volume in parallel with its diversification. Due to the fact that the introduction in production of the new products is preceded by the subsequent execution of some manually manufactured prototypes, the products are manufactured afterwards on an industrial scale. Under these circumstances there is the possibility of small errors which affect the consumer's behaviour towards the new products. That is why, in auditing the focus is on the careful supervision of the opinions of the consumers and especially of the shortcomings of some products indicated by consumers in order to remove these from the manufacturing line. Under these circumstances, a very tight connection is required between the producers and the consumers, and a special liability of the producers towards those products. At the same time this is also a worldwide concern for the regulation of the products responsibility which has already been adopted by some large manufacturing countries. The recent example of USA was followed by the European legislation. That is why American organisations which export to Europe have to be warned because the law of product liability has been adopted in many European countries. The insurance companies are usually paying the initial losses for the cases of product liability. The manufacturer of a product has to protect itself from the risk of being brought to trial or at least to reduce the risk to a level where he could afford a reasonable profit or a continuous growth. In order to meet this objective, we need a product liability prevention program. This study analyses the product liability prevention program and presents some of the essential common elements for such a program. Therefore, one can argue that in order to have an effective product liability prevention program, some operations are required as for example: organisation, education, new revision of the products, initial revision of the products, periodical control of production, warranties control, warning of the contracts, complaints and claims, revocation plan, subrogation, risk criteria, standards, services control, reparation, etc. All these elements are described according to their own characteristics, as well as to the specific situation from the USA economy. There have also been outlined some characteristics of these elements which could allow for a product liability prevention program in other countries. That is why these elements have an important role in the economy of this material and underline once again the theoretical and practical importance of the studied problem.

Keywords: logistics, consumer's behaviour, product liability prevention program, risk criteria, standards

Introduction

The USA department of commerce published ”The Model Uniform Product Liability Act”. The model law refers to the uniformity which makes the rate of product liability stable. Although the act never passed the USA Congress, it was voluntarily used by states. Many states have adopted the essence of the act in their processes.

Presently, the growth of the cases of product liability is attributed only to some products – asbestos, Dalkon shield. The rate of growth of the cases starting with 1981 is of 4% per year, if these products are removed. The 4% growth of the liability cases is proportional with other civil or personal prejudice cases.

The future challenge in the liability cases is situated in the area of toxic products as asbestos. The toxic products have different obstacles as opposed to other products. They often lead to chronic long term diseases, as opposed to an immediate accident injury. Many people have generally been exposed to toxic products and the number of liabilities threatens the solvability of a significant number of drug manufacturers or chemical products manufacturers using formulas for similar products. For a manufacturer it is difficult to assess the risk of a defective product for a second or third generation. The manufacturer encounters difficulties in assessing the future responsibility in order to adjust the cost when a product causes damages to many people for a longer period of time. The case of toxic products is burdening for the state and for the federal legal system and may be an impulse for the national compensation system for toxic damage.

The recent example of USA has been followed by the European legislation. American organisations which export to Europe have to be warned because the product liability law has been adopted in many European States.

Product liability prevention program

Safety measures

The insurance companies pay the initial losses for the product liability. The manufacturer of a consumable product has to protect from the risk of being brought to trial or at least to reduce the risk to a level which allows a reasonable profit or a continuous growth. In order to fulfil this objective a product liability prevention program is required. Although these programs vary from one corporation to another, some common elements are essential for an effective program.

Organisation

In order to have an effective product liability prevention program, we have to set an organisational structure. This structure will be according to the size of the organisation and the aptitudes of the employees. The organisational structure has to mention to responsibilities and to have the authority to fulfil these responsibilities.

A special safety commission for the products has to be created, with an engineer responsible with putting the safety measures into practice or with an outside consultant as a member. The purpose of this commission is to coordinate various activities. The members of the commission have to be from the design department, legal environment, production, marketing sector and the quality area, and the engineer or some other person should be the president. Moreover the president will have the following tasks:

1) Maintain the connection with the insurance companies or the governmental consultants ;

2) Participate in the prejudice cases;

3) Maintain an educational program;

4) Coordinate the control program.

5) Act as a consultant in functional areas.

6) Be informed on future tendencies

If the organisation does not have a responsible engineer, he has to be selected from the inside or outside of the organisation. The selected individual has to:

- Have technical knowledge on the products to be manufactured;
- Have experience,
- Prove professionalism and diplomacy both internally and externally,
- To have access to management,
- To be respected by everyone,
- To be able to launch a project,
- To be a team player.

After the individual has been chosen, all the other people have to be aware of his role. The potential problems as for example letters or telephone calls from customers, notifications from insurance companies or lawyers have to be directed to the engineer responsible with putting the safety measures into practice.

Education

Education represents the corner stone of the program. All the employees have to be aware of the importance of the product safety. An initial effort of using the available bought materials, training sessions and printed materials, can educate the personnel about the product liability prevention program. The new employees or the transferred employees are part of the organisation and they have to be exposed to the same educational effort. They have to know how to deal with the first notifications about the product – incidents and curious telephone calls which warn about the possible incidents.

A form of lifelong training is a part of the action plan. Information as changes in law, results of the legal trials, data used to check and control are very important and have to be communicated to the employees.

New products revision

The new products are the products which are often brought to trial that the old ones, and that is why a new revision is needed before these products leave the factory. Revision is the first and less expensive chance of the organisation to identify and correlate problems. The consumer's safety is the most important thing is the revision process: function, cost and sale being on the second place. In other words, the product safety is one of the design parameters. The design and quality control staff has to learn that the products manufactured under adverse conditions have previously been considered abusive and a lawyer of the referring party will consider these predictable.

There should be adopted techniques for a safe design and some of these techniques are:

1. Failure method and the effect of the analysis ;
2. Free analysis of mistake;
3. Concepts failure-safety;
4. Analysis tests;
5. Safety symbol for the product characteristics;
6. Coded identification in order to be tracked.

A description of the product by the designer is the starting point in the revision process. This description includes the use of the product, duration, the potential failure, the design parameters, the use environment, the development tests and the final accepted criterion.

The revision team does not have to have preconceived notions regarding the product. This evaluates the product according to the present and predictable industry and the governmental standards in the same way as with the laws, codes and rules. At the same time, one has to take into account the requirements of the customer and the final anticipated use of the product,

Moreover the team takes into account any previous prejudices of the product.

It is almost impossible to design a product without any safety incidents. Under these situations, the unsecure area, is guarded or protected by the exposure to a prejudice. The defects of the products can be designed in some situations, and to appear in such a manner so that they do not cause a prejudice. If the product cannot be designed or protected against the risk of prejudice, then the product should have attached warnings in words, colours or figures.

The tests on customers are able to predict the wrong uses of the product. The designers test a product in order to see if it has the predicted performances when it is correctly used. A test on customers tries to determine what happens when the product is wrongly used. The documentation on the tests should be fulfilled in a manner which does not allow risks.

Due to the minor design and material changes prejudices may appear in an existing product so that the same revision is needed for all changes. The design control needs to comply with the standard ISO 9000.

Initial production revision

The first revision of the product generally relies on a manually manufactured product. That is why it is required an ulterior revision of the first production in order to determine any defects which were not observed in the prototype. A limited production is recommended and a controlled distribution in order to avoid a hazardous product. For this limited sample, the important information may be obtained from customers, while the risk exposure to liability is minimal.

The revised production will assess the construction plan in order to determine the c agreement with:

- The failure and the analysis of the effect
- The manufacturing and the work procedure
- Manufacturing instruments
- Used materials
- Test equipments
- Control system
- Sample plan
- Packing and forwarding
- Work instructions
- Safety warnings
- Service information for distributors and dealers

The entire staff which acts in the revision process may assess the safe design of the product. The more people evaluate a product for safety reasons, the higher is the probability that the exposure to responsibility will be detected before the product will reach the market. The control process is a ISO 9000 requirement.

Periodical production controls

Most of the organisations carry out periodical production control in order to check or validate the efficiency and quality of the control system. It also has a ISO 9000 requirement. These controls may be expanded in order to assess the safety parameters. The control can be carried out on recently manufactured products or on products which have passed through the distribution system or products used by the customer for a period of time. The product inspection and test relied on a simulation of the activity of the customers. The result of the control is sent to the commission for the safety of the product (Scrioşteanu, 2009).

The control of the guarantees, warnings, contracts

The prevention program for the product liability has to continuously check the warranty, advertisement, the contracts of the dealers, the catalogues and the technical publications. The revision has to include:

1. A check which should determine the terms and conditions of sale are limited to a declaration of return, which means that the product is manufactured out of a good material with an adequate labour force. The use of the phrases ”safe” and ” provides the safety of the operators” should be avoided. If the product is catalogues as being ”safe” and a person is prejudiced, it means that the product is defective.

2. An analysis carried out by a lawyer of all copies, commercials, sales brochures, literature for the promotion of the products, technical reports and presentations.

3. An examination of the buying disposition in order to determine the acceptation of any warranty stipulation.

4. An analysis of the distribution of the dealers and of the concession contracts in order to determine the management of the defective article. These contracts are admitted in court and may recognize the fact that the organisation manufactures defective products.

5. A check in order to determine whether the words ”nonconformity” and ”nonconformist unity” have been correspondingly used.

6. An evaluation of the costs of the warranties as it follows:

- The identification and measurement of the significant variables which affect the warranty costs.
- Measuring the costs of the safety of the product guarantee.
- Determining the different characteristics of the product.
- Determining the type of promoted guarantee.

Complaints and claims

A complaint or a claim is a communication between the market and the organisation regarding the performance of the product. This informs the manufacturer that he should make a correction. A. Pareto considered that the complaints analysis may lead to a change in the design or manufacturing of the product which will reduce the exposure to prejudices.

The investigation of the corporal prejudices or of the damage claims regarding the safety of the product has to be initiated very quickly. The notification about a claim or complain is given to a distributor or employee. This is sent to the adequate department for action. The engineer responsible with following the safety measure and the insurance company revises the situation and determines:

- The cause of the complaint or claim;
- The nature and severity of the prejudice;
- The nature of the failure which caused the situation;
- The age of the defect and if it was present when the product was sold.
- The negligence of the parties.

A preliminary investigation may lead to a resolution of the claims or to the preparation of the defences for those claims which may request the trial.

The claim and complaints procedure has to carry out a notification for the specialized departments depending on the seriousness of the claim. A revocation plan for the product might also be requested. The corrective action is a ISO 9000 requirement (Olaru, 1999).

Saving the recordings

The defence in a product liability trial needs the availability of production design and sales notification. The special types of recording which have to be saved are:

- The development of the product and the test recording;
- The results of the process, product and inspection system;
- The recording of written and verbal communications with customers, product application, materials and claims;
- Date of design;

- Warranty period;
- Acceptation and approval by the governmental agencies, customers or independent testing organisations.
- Recordings of accepting raw materials.

The recordings are saved in such a manner so that the material or product is the sketch of an operator, machine, time, etc.

The recordings have to be protected of losses by depositing them in non-inflammable cabinets and doublings.

The problem regarding the duration of keeping the recordings depends on a series of considerations. The recordings are usually kept for the entire duration of the life of the product and for 18 years more, in order to cover the time when a minor prejudice may lead to a trial.

Other considerations which should be remembered are:

- The eminent risk of the product,
- The need of recording of the defence,
- The saving method.

The procedure of saving the recordings is a ISO 9000 requirement (Peace, 1992).

The revoking plan

Although the cost of revoking a product varies significantly according to the type of the product and the quantity involved, the costs are substantial and force more than one organisation to go into bankruptcy. An unpredicted plan of revoking helps to minimize the revoking costs and the product liability risk.

Once the notification for a defective product is received, the organization has to decide if it revokes all products which are suspected to be defective. This decision relies on three factors:

(1) The maximum exposure to personal prejudices or to material damages if the product is not revoked. This determination will rely on a pattern defect; the quantity involved the severity of the risk and the cost of revocation.

(2) The type of communication (radio, TV, newspaper and letter) used in contract by the product users.

(3) It will be determined if the product is going to be repaired or replaced and whether the client is indemnified.

If the fault or defect is considered to be random ”the commission for the customer’s protection” forces thee manufacturer to act accordingly. In this case the decision is taken for the manufacturer.

When a revocation is requested it is highly important to identify those units which have determined the deficiency and to correlate that identification with the suitable manufacturing recordings (Knouse, 1996).

Subrogation

A part of the product liability prevention program involves raw materials, components and suppliers. The same elements of the evaluation of the safety criteria which are applicable to the buyer are also applicable for the supplier. A visit is required to the factory of the supplier and a prevention program. The supplier also has to visit the factory of the buyer in order to evaluate the safety of exposing the product to raw materials, components or subassemblies.

All the communications between the supplier and the buyer regarding the deficient raw materials, the components and the subassemblies are done in written. The buyer delivers the supplier all the information regarding the product safety as well as complaints, warranties and revisions. The supervision of the purchase is a ISO 9000 requirement (Popescu, 2008).

Risk criteria

If an organisation manufactures a series of products, it usually has a series of potential losses of the liability towards products. Some products, for

inherent reasons present a higher risk than others, and that is why the products are evaluated according to some safety, individual criteria. This technique allows the organisation to exert a preventive effort on the products which require this. ”The failure and the analysis of the effect” represents a starting point where the value of the dollar can be estimated.

Standards

All the prevention programs, especially those of the large corporations, have to involve employees in developing the design and quality standards. Because the manufacturer looses the most due to the unreal standards, their employees have to be involved in professional groups which develop the standards. At the same time, the management of the organisations should be informed of the product liability law (Juran, 1980).

Control

Periodical controls of the prevention program are essential in order to determine whether a program is satisfactory from an operational point of view. These controls are mostly system controls, which operate in the same manner as the total quality control. The periodical controls are useful tools to measure the progress and to promote the reverse connection in order to improve the prevention program. The results of the control are written and circulate in the organisation. The controls are a ISO 9000 requirement (Popescu, 2007).

Service

The activity of the customer service may have an influence on the efficiency of the prevention program. The customer service should report the notifications about the product and its wrong use. At the same time, if reparation is required, this has to go under the same procedure as the initial procedure (Peace, 1992).

Reparation

The customers will usually accept failure, if there is reparation which needs:

- An insurance policy which should meet the requirements of the customer ;
- The availability of the information regarding the reparation procedure ;
- Reparation facilities provide a prompt service for a fair price.

The organisations may improve the loyalty of the customers through efficient reparation.

The resources are limited, and that is why it is often impossible to create a perfect product. On a long term, the customers pay for the trials.

Conclusions

Therefore, one can argue that in order to have an effective product liability prevention program, some operations are required as for example: organisation, education, new revision of the products, initial revision of the products, periodical control of production, warranties control, warning of the contracts, complaints and claims, revocation plan, subrogation, risk criteria, standards, services control, reparation, etc. All these elements are described according to their own characteristics, as well as to the specific situation from the USA economy. There have also been outlined some characteristics of these elements which could allow for a product liability prevention program in other countries. That is why these elements have an important role in the economy of this material and underline once again the theoretical and practical importance of the studied problem.

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