



MANAGING PRODUCT RECAL AND CUSTOMER LOYALTY IN CASE OF AUTOMOBILE INDUSTRY

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Abstract

Post globalization all over the world, product recall in various industries has become a primary obligation for a manufacturer in meeting the safety standards of use to the consumers. Despite a company's best efforts to design, manufacture and sell safe and reliable products, the possibility still exists those dangerously defective products may reach the consumers. These products may cause accidents, leading to adverse verdicts in product liability litigations. Unfavourable publicity may result in loss of sales and damage to the company's reputation. In the past, product failures were often attributed to local or functional errors in product design, the manufacturing process, or inadequate labelling with limited impact. However, in recent years, a series of high profile product recalls in Indian automobiles including Maruti Dezire, S cross, Renault Kwid, Mahindra Scorpio had shaken the public confidence in the ability of the manufacturers', regulatory bodies and governments to assure the safety of products to consumers. It would lead to huge litigation fees and loss of sales, reduced manufacturing output and significant repercussions in global scale. This research paper addresses the concept of Product recall in the Indian context and Indian automobile industry, the Government of India /regulatory agencies and certain strategies to be followed.

Keywords: *Product recall, safety standards, consumers, defective, litigations, accidents, fees, regulatory bodies, automobile industry*



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1. INTRODUCTION

In past few years, there have been numerous incidents when the industries have either demanded their customers to attend certain type of service campaigns or have asked their customers to understand the inconvenience and submit the product to the dealer or the agency. This kind of request or formal notification is Product Recall, which a company brings in market to reconsider the products they have launched. Product recall represents a formal request, by a firm to its customers to discontinue the use of a product in its original form and it occurs when a product poses a danger to customers or violates Consumer Product Safety Regulation. The process of Product Recall constitutes the movement of the product from the customers back to the companies. There can be number of issues which make the company/firm to request a recall. In recent years, In Automobile companies, there have been

many instances of Product Recall and the percentage of the same is increasing at an alarming rate. In recent years, major automobile companies, have recalled their four wheelers due to some or another defect, incapability of the product to match the specifications designed by the Company authorities. Product Recall here become very essential as well as crucial decision that a company must take to retain its brand image and to satisfy their customers. Companies like Volkswagen, Hyundai, Honda, Maruti Suzuki, Nissan have recalled their cars due to one defect or another. And in recent years it is highlighted and is affecting the brand image of the company in different aspects. The recall is not only specified to a certain range of the four wheelers but can be witnessed in luxury cars as well. Companies because of cut throat competition are adopting more and more methods to produce vehicles at a lower cost but their methods are not proving to be very successful and thus they must issue recalls time and again.

India, the fifth largest market for passenger vehicles (cars, vans and utility vehicles), does not have a mandatory vehicle recall policy, yet over 2.2 million vehicles were recalled in the last four years.

Almost every car maker whether big or small has announced a recall in the last four years.

Even if a company now tries to call it a 'service campaign', it gets reported as a recall in the media. In May, 2016, the country's largest car maker, Maruti Suzuki, had announced a service campaign for over 20,000 units of the S Cross, its first crossover that was launched in 2015 but it was taken as a recall. The country's largest carmaker recalled two of its top selling cars - Baleno and Swift DZire on the back of faulty airbag controller software and faulty fuel filters. Over 75,000 units of Baleno were recalled, while 1,961 units of its popular sedan DZire were recalled for inspection and replacement of a faulty fuel filter. The company had announced undertaking of a service campaign to inspect a suspected fault and replace a brake part in over 20,000 units of S-Cross. The faulty part was found in units made between April 20,2015 and February 12, 2016.

Volkswagen's recently issued a recall of 3.4 lakh vehicles on 12th January, 2017 in India as per a global process to replace a controversial software that helped the German car maker to pass emission tests. Thus, a recall has been made to replace a software that has come in the eye of the storm as it helped the car maker to pass emission tests. Again, no information has been given about when the process will be completed by the company thus can affect company brand image.

Renault India Pvt. Ltd, the Indian unit of the French car maker, is likely to recall at least 50,000 units of the Kwid model to rectify a faulty fuel hose clip. The number of cars that may be recalled is based on the total units of Kwid cars manufactured between its launch in September 2015 and 18 May 2016. The firm has not disclosed the number of cars it plans to recall.

Renault's sister concern Nissan India Motor Pvt. Ltd also recalled 932 units of the Datsun Redi-Go in 2016. Nissan, too, will inspect the fuel hose and fix a clip at no cost to the customer.

Honda Cars India Ltd (HCIL) recalled around 2.24 lakh units of its premium sports utility vehicle CR-V, sedans Civic and City, and hatchback Jazz on Sept,2015 manufactured between 2003 and 2012 to replace faulty airbag inflators in the largest such exercise in the country.

In May 2016, the company recalled over 48,000 units of its SUV Eco sport. The company called back 48,700 units to rectify faulty fuel and brake lines and rear seat backrest. In September 2013, Ford India recalled over 1,60,000 units of premium hatchback Figo and sedan Classic to rectify problems related to steering and rear suspension. Ford recalled some similar models back in July 2012 to consider potential problems with their rear twist beam and the power steering hose. A potential crack in the rear twist beam in Figo and Classic cars manufactured between January 2008 and December 2010 could lead to the car being inoperable if initial noise symptoms were ignored. Vehicle recalls are a sensitive subject in India, with sharply divided camps and opinions. Some argue that a mandatory policy on vehicle recalls with provisions for penalties will make the industry more accountable.

Others, usually auto industry executives, argue that recalls should be independent of any policy intervention that could hurt investor confidence.

More than 2.4 million cars have been recalled in India in the last four years. India's auto makers have started to recall vehicles more frequently after the country's auto lobby group Society of Indian Automobile Manufacturers adopted a voluntary code on vehicle recalls in 2012. Rising customer awareness over global recalls has also played a part. The paper is organized as follow: The next section describes the theoretical background and extant literature related to product recall in automobile industry and the conceptual model is framed in the same section, the concluding remarks are given in the final section.

2. LITERATURE REVIEW

The phenomenon of the impact of recalls in general and automobile recalls in particular presents specific characteristics making its study complex and generalizations often challenging. For example, each recall takes place over a well-defined period, concerns a particular model of vehicle, may be initiated by a manufacturer or a governmental organization and may represent varying degrees of danger for drivers.

Wynne and Hoffer (1976) deny any eventual impact of recalls on sales volumes of recalled vehicles. In contrast, Crafton et al. (1981) demonstrate that automobile recalls for safety reasons have a short-term negative influence on sales of these products. Harrison et al. (1982) also show that 74 percent of owners who experienced automobile recalls are favorable to the purchase of the same model. Kabak (1991) shows that recalls may have an impact on the stock market of the company in question. Elsewhere, Siomkos (1994), who examined various brands of vehicles under specific recall circumstances; believe that automobile recalls affect sales and manufacturer's market share. Nonetheless, the intensity of this impact seems to vary as a function of elements such as the length and intensity of media campaigns against defective vehicles, manufacturers' media responses and their respective reputations. The interaction observed between these elements and the type of crisis management adopted seems to create a unique situation for each automobile recall

Siomkos and Kurzbard (1994) present three elements directly influencing the intensity of the impact of recalls on consumer behavior. In their research, crisis management, the company's reputation and external effects (media, government agencies etc.) are the principal factors. They may reduce or increase the impact of recalls on consumer behavior. Indeed, according to Siomkos (1999), when the company affected by the recall has a good reputation and the manufacturer's strategy of communicating with consumers and the media is perceived positively, the negative impact of recalls on purchase intentions is diminished. On the other hand, when a company with an average reputation proceeds to a recall after pressure by governmental agencies, not voluntarily, this may negatively affect consumers' purchase intentions.

Regardless, they do not allow for the measurement of consumer attitudes with respect to each recall procedure and empirically demonstrate their distinctive aspect since they rely on scenarios for each recall and simply place consumers in a given situation before measuring their future purchase intentions and their perception of danger with respect to the recalled product.

The paper closely follows that of Siomkos and Kurzbard (1994), aiming to further its contribution through proposing and validating a measure of consumer attitudes to different forms of automobile recall through displaying their distinctive aspects in consumers' eyes, as well as offering a detailed description of consumer reactions to manufacturers responsible for various types of recalls. Kabak and Siomkos (1991) as well as Siomkos and Kurzbard (1994), suggest that voluntary recall does not negatively affect the image of the company concerned by the recall, and may even improve it. With this approach, manufacturers are demonstrating that they accept total responsibility vis-a-vis their clients and are constantly seeking to offer them safe products. As a result, this type of recall lessens consumers' perception of danger and may indirectly positively affect the consumer's image of the manufacturer. **Thus, type of recall i.e. voluntarily and involuntarily, greatly affects the company's image.**

Chrysler that, in the 1990s, disconnected the endometers from its new vehicles during factory tests. However, when this news became public, the manufacturer apologized and admitted the error. Thus, Chrysler used this crisis to its advantage in increasing its "brand capital" by 20 percent, moving it from 45 to 65 percent. In other words, the company's reputation plays a moderating role with respect to the effect engendered by the impact of the recall. These results are consistent with the findings of Barber and Darrough (1996) who, in their study on consumer recalls, highlight the influence of delays in repairs due to manufacturers' recalls, and the number of recalls of competitors, as well as the type of recall selected by the manufacturer, the latter's image and media coverage of the recall. Hillary (2004) in their study, presents the negative impact of a few examples of approaches adopted by automobile manufacturers. They explain that manufacturers that completely deny product defects and/or refuse to proceed with a recall and shoulder their responsibilities create a negative consumer perception of the product and the company image. These studies underline the importance of the manufacturer's crisis management and adoption of the appropriate recall technique to retain consumers.

In the same context, Mitchell (2000) introduce the notion of a "super effort" recall or improvement campaign. These recall campaigns were not required by governmental agencies. They stemmed from internal decisions that usually aim to recall models with minor defects that do not compromise passenger safety, in order to correct them, thus the name of "improvement campaign." In so doing, the manufacturer demonstrates a concern with providing a superior quality of product and, therefore, creates an image of a reliable brand. Dawar and Pudurn (2007) suggested that this type of approach is an element that may lessen

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consumer perception of danger. **Consequently, recall restitution positively affects the company's image.**

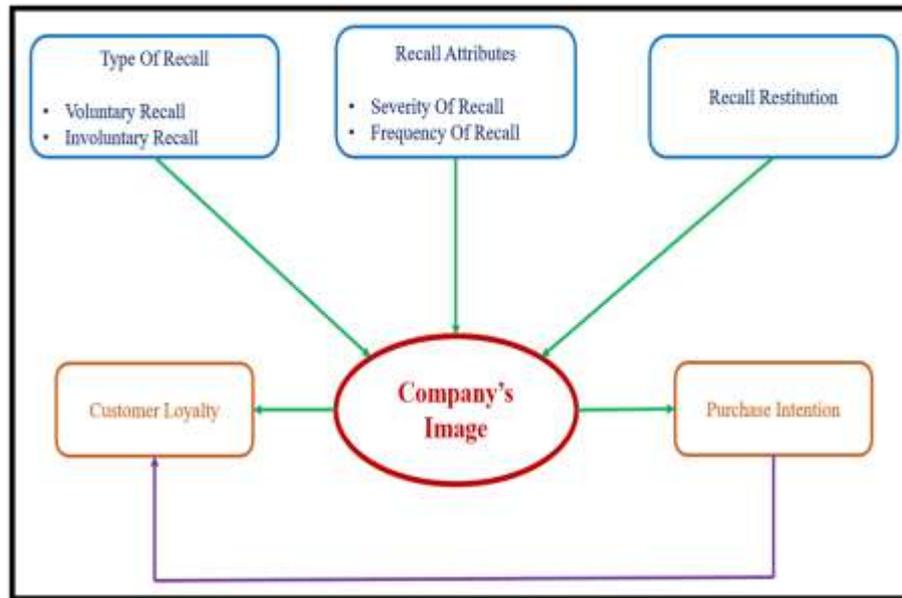
In particular, pre-crisis reputation becomes increasingly important as a signal of quality in times of product-harm crises if the possible damage due to product defects is also high. This holds because in this case consumers will be confronted with a severe perceived uncertainty concerning quality (Pearson 1998). According to cue utilization and signaling theories, a risen uncertainty is accompanied by a higher need for external information (like reputation) to effectively evaluate quality and thereby reduce perceived uncertainty (Prince, 2002; Kumar 2006). The product problems picked out as a central theme in product-recall situations allow to expect higher perceived problem severity than in substantiated complaints situations. The same holds comparing substantiated with non-substantiated complaints situations. This is due to an increasing range of risks or potential of loss involved and has been termed negativity effect or negativity bias (Jarrell, 1985; Anne 1995). The argument outlined above is well-grounded on crisis signal theory, which posits that the effects of a single crisis event depend on its underlying signal potential. The signal potential of a crisis event is larger the more it heralds severe future problems (i.e., risks), although the current problems may be of a quite limited nature (Souiden, 2009; Hora, 2011; Maciej, 2012). Higher levels of perceived problem severity and consequently higher uncertainty are to be expected in product-recall situations relative to substantiated complaints situations and in substantiated relative to non-substantiated complaints situations. The preceding discussion indicates that, regardless of the nature of the recall, this latter tends to have a significant effect on the manufacturer's image. **Thus, severity of recall and potential of loss involved in the defected product negatively affects company's image.**

Siomkos (1999) explains that the manufacturer's image plays an important role in determining the impact of recalls on consumer behavior. Aaker suggests that the brand image creates value for the brand for at least five reasons: it helps the consumer process information on the product, it differentiates the product and its positioning, it provides reasons for the purchase, it tends to develop a positive feeling towards the brand, and it allows for brand extensions. According to this definition, it can be understood that why the manufacturer's image may have an impact on consumer behavior to the degree that the image "helps to process information on the product." Thus, Ahsan (2013) contend that, during a recall, a good image of the manufacturer may maintain consumer confidence in the manufacturer and the product. This opinion is confirmed by Mariana (2016) who have shown that the better the

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company brand image, the more positive are purchase intentions. **Thus, manufacturer’s positive image arouses positive purchase intention in the minds of the consumers and helps to build brand loyalty.**

Based on the literature review, the following model is proposed -



Conceptual Model

Figure 1: Conceptual Model

Communication with customers

When a recall strikes, there are numerous, simultaneous demands facing organizations. Communication with customers and distributors, coordination with regulatory bodies, and product retrieval and destruction all require attention. For global manufacturers, execution of a recall is even more complex because of the multiple international regulations and stakeholders involved. Developing and testing a recall plan that encompasses a variety of scenarios is key to success. Investing this time can make the difference between an event that irreparably tarnishes a brand's reputation or one that reinforces the company's commitment to high safety standards, the health and well-being of its customers, and transparent recall practices. With that in mind, the following are general best practices to aid manufacturers in the creation of a recall plan.

Consumer Notification

In case of product recall it is very important that how efficiently the organization can notify affected consumers. While government agencies are responsible for issuing product safety alerts, recalls, withdrawals and other relevant information, a company cannot rely solely on

these external communications to reach all the product's end-users. Rather, they must contact consumers directly through a variety of channels based upon the nature of the product, customer demographics, and more.

Whatever the case may be, it's important that companies have a sound notification strategy in place before a recall occurs. In addition, companies must prepare for the surge in customer service calls that generally accompany a recall announcement. This might mean having surge capacity within a call center to quickly scale, or ensuring that the microsite housing information about the recall is prepared to handle a high volume of traffic.

The study holds its scope when it comes to perception of the consumer in case of recalling of four wheelers. Though there has been no such financial burden on the consumer when the product is recalled, but several other factors which include customer satisfaction, safety, loyalty, reliability on the company may be affected and further effects may be challenging for the company

Keeping in view the number of avenues that are still to be explored, recalls the need of study. The study will include all the different perceptive that will conclude the effect of recalls on the manufacturer's image and its market value after the recall of the product is appealed.

In the recent years since 2011, product recalls in the automobile industry have been frequent raising several questions and severe doubts about the checks and safety measures adopted by the automobile makers. Government regulations in India pertaining to recall are not very specific and the policies not well defined. For instance, the Indian Motor Vehicles Act, 1988 has no provisions for dealing with product recalls. Automobile recalls were earlier not very prevalent in India, as manufacturers' feared bad publicity from the exercise, leading to a potential negative impact on sales of the model. However, with increased focus on customer safety as well as roll out of voluntary recall guidelines issued by the Society of Indian Automobile Manufacturers (SIAM), leading automobile manufacturers have been making announcements on defective components. Industry analysts strongly feel that Indian vehicle manufacturers shy away from admitting to faulty parts when a generic problem is noticed. Against a strict regulatory regime followed in USA & Western countries over automobile defects, India is yet to get a mandatory recall policy backed by the Government. Even during production, an annual random check can be undertaken. However, these checks are not observed carefully leading to lapses in procedures /false certifications by Government agencies.

Significant evidences by leading automobile manufacturers in India, though voluntary have become common in recent years as describe in the table given below:

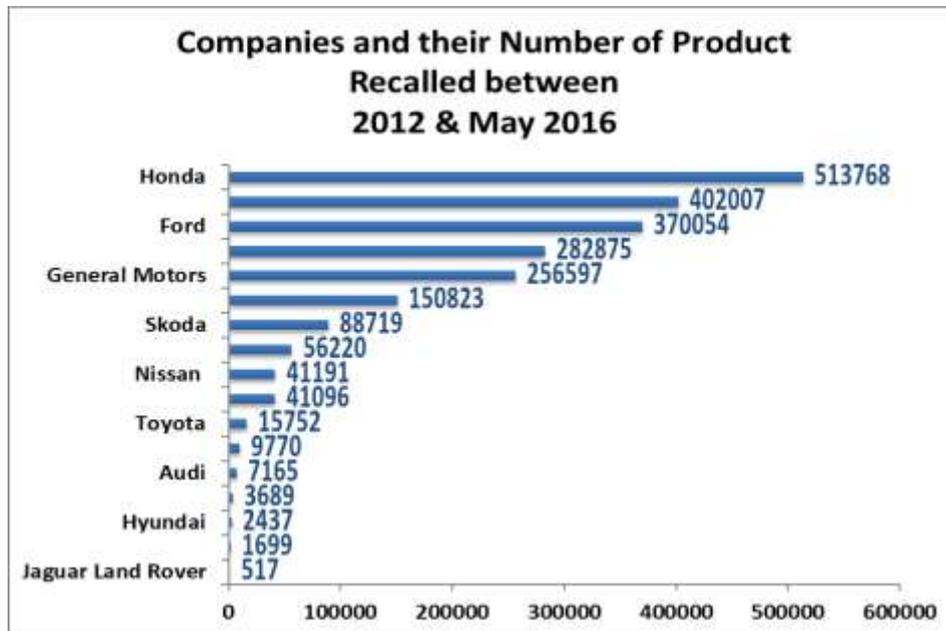


Figure 2: Number of vehicles recalled between May,2012 to May, 2016.

Source: Siam

3. DISCUSSION & CONCLUSION

As discussed above, the vital issues of the Product recall need urgent attention at various levels, the following strategies and code of conduct are suggested here for the Government, the automobile sector and the general public.

Government /Government Agencies

There is an urgent need for incorporating recall policies in the Motor Vehicles Act, making it mandatory for auto mobile manufacturers to publicly announce all recalls. As mentioned above, stringent norms that require the auto mobile manufacturers to take total responsibility for the defective vehicles is legislated in developed countries like USA and European countries. Such regulations are observed in China as well. Manufacturers in India are generally known take advantage of the loopholes in motor legislations and do not make special efforts either to educate the consumers or their employees about the consequences and implications of product recalls. Therefore, it is not surprising that in our country all concerned lack the awareness and preparedness to handle product recalls.

The Government of India has to come out with a comprehensive policy and legislation on Product recalls. This should cover the obligations of the manufacturers /their agencies in terms of product design, packaging, labelling, identifying situations that warrant compulsory

recall, penalty for failing to recall, punitive action for repeated product recalls, procedures for destroying recalled goods that cannot be salvaged and settlement of claims made by affected customers/buyers. The regulatory framework followed by developed countries can be suitably adapted to the local context so that too much time is not spent on framing the rules and policies.

Automobile companies must provide prototypes of the vehicles to the Vehicle Testing & Certification /Type Approval agencies such as Automobile Research Association of India (ARAI) and the International Centre for Automotive Technology (ICAT) which has to be approved before the sales begin. As a fall, out of frequent instances as discussed above, ARAI has sought a random selection of vehicles and increased frequency of testing to make testing procedures in India more stringent. In order to create increasing awareness to the automobile manufacturers /ancillaries and the users in general, the Government endorses these recommendations speedily.

Government of India should also make it mandatory for the automobile manufacturers to go for product recall insurance (first party damages) instead of third party damages that are covered by most of the companies so that the manufacturers are more open to recalls instead of trying to hush up things". Insurance Regulatory Authority like IRDA might note the suggestion.

Any risk management strategy for assuring product safety throughout the supply chain must address incentives (or disincentives and penalties) for firms implementing policies, processes, practices to promote the safety of products. Governments and Industry associations are seldom considered as collaborators in supply chain safety, but partnerships between business and government agencies would be required to improve safety and security in the supply chain.

Automobile Manufacturers

Ideally, products shipped out of the factory by the automobile manufacturers should be 100 % defect free. Manufacturers must ensure that the defects in terms of PPMs do not exceed specified limits. This can be achieved by having a well-designed process that is reliable and by putting in place appropriate process checks and controls using advanced statistical methods and appropriate sophisticated instruments.

The first response to product complaints from the consumers need not be a recall. A quick but thorough analysis of the situation may present different alternatives such as fixing the problem at the customer's premise by deputing a team of well qualified technicians instead of

incurring huge costs on reverse logistics. Reverse logistics addresses a different set of issues and therefore discussed later.

A recall manual, on the same lines as an on-site emergency plan should be prepared and a team of senior managers drawn from all functional areas should be always available to handle product recalls. In the event of a crisis, the team should take a quick assessment of the situation and decide on the appropriate action plan, i.e., total recall, selective recall, or free repairs at customer's site.

Proper product identification system, preferably driven by latest technology such as RFID, helps identify the exact batch number, and date/time of production of goods warranting recall. It may be stressed here that Automobile industry from the earliest times has been assembly oriented manufacturing industry and the components used in building the automobiles are mostly the parts manufactured by other industrial units/ancillaries /component producers than the automobile manufacturer itself.

Once the problem is resolved, there has to be a debriefing session for all the managers to learn from the experience. A product recall, whether a major or minor may necessitate a thorough review of the company's quality assurance /verification systems, product design packaging and logistics, all of which provide a great learning opportunity ,should be documented for future use and reference. The Public Relations department of the company has a major role to play in controlling the damage by issuing timely press releases about what it is doing, giving media briefings, posting notifications and updating on the company portal and by keeping the communication channels open 24x7 for all stakeholders to avoid any possible misgivings. It is important that the company is fair, honest and transparent while dealing with product recalls, instead of trying to hush up things

Help should be taken as the situation demands, from outside experts such as lawyers/attorneys and professional media managers /copywriters, albeit on a temporary basis to handle the crisis as all the organizations may not have adequate in-house expertise for handling such crisis situations.

Consumers and Media

If the product recall is a compulsory one, consumers must cooperate with the manufacturer and the law enforcing agencies by returning the defective products. Consumer forums should be sufficiently empowered to admit claims pertaining to product failures, in the event of automobile manufacturers not owning up the responsibility to facilitate a speedy redressal procedure of grievances and disposal of claims.

Reverse logistics is related to ownership cycle of the vehicles among the first-hand buyers /owners in India which is about five years. There is a registration process that needs to be followed once the vehicle ownership changes from one person to another. This is one of the pain points during product recall. Owners of second- hand vehicles take the registration formalities casually and don't often bother to get a new registry on their names. This makes it difficult for the car manufacturer who is trying to get in touch with the owner during the product recall. Vishnu Mathur, Director. According to the SIAM, If the batch of vehicles to be covered in a recall was manufactured 10 years ago, it will be difficult to trace the owner.

To conclude, a strong consumer movement together with stringent legislations in India will drive product recalls by brands that cannot afford costly litigations and the possible loss of goodwill in the market. In such a situation, the faster and low profile a recall, the cheaper it will be for the company in the eye of the storm

Whether it's a toy, automobile, medical device or food item, not a single item has been left which has not been recalled. Unfortunately, recalls are a reality of the global economy and it truly is a matter of when, not if, a company will be impacted by one. Navigating a product recall tests customer relationships, puts pressure on the supply chain, affects sales and can paint brands in an unfavorable light. Given the serious nature of these and other recall execution challenges, it's critical that organizations have a recall plan in place long before an event occurs.

4. LIMITATIONS OF THE STUDY AND RESEARCH IMPLICATIONS

The limitation of the study is that it is based on the secondary data only. It is limited by the nature of its analysed indicators. Targeted research areas are analysed in frameworks of a bigger global picture, in attempt to visualize general situation in the country as it relates to the world in terms of strategic supply chain management. It is however extremely important to research every topic deeper to build up a stronger forecast for future decision making. It is only an effort attempting to integrate various knowledge in order to understand the impact of product recall on the consumer buying decision. Further research can also include certain other factors relating to the product recall. Also, as it is obviously possible to suggest, deeper examination of specific issues must be conducted.

REFERENCES:

- Anne Meike Eilert. (1995). Brand Reputation and Product Recall. University of South Carolina; Theses and Dissertations, University of South Carolina Scholar Commons.*
- Assurance, safety. (1990). US Department of Transportation National Highway Traffic Safety Administration.*
- Copyright © 2017, Scholarly Research Journal for Interdisciplinary Studies*

- Barber, B.M. and Darrough, M.N. (1996). *Product reliability and firm value: the experience of American and Japanese automakers. The Journal of Political Economy*, Vol. 104 No. 5, pp. 1084-99.
- Bates, Hillary. (2004). *Motor Vehicle Recall: Trends, Patterns and Emerging Issues. Industrial Management*, pp. 232-247.
- Crafton, S.M., Hoffer, G.E. and Reilly, R.J. (1981). *Testing the impact of recalls on the demand for automobiles. Econ. Inquiry*, Vol. 19, October, pp. 694-703.
- Harrison, M.C., Cooper, M.B. and Reidenback, R.E. (1982). *Auto recalls from a consumer perspective. Akron Business and Economic Review*, Vol. 13 No. 2, pp. 17-21
- Jarrell, G., & Peltzman, S. (1985). *The impact of product recalls on the wealth of sellers. Journal of Political Economy*, 93(3), 512-536.
- K. Ahsan. (2012). *Car Recalls: A Problem Unique to Toyota or For All Car Makers. presented at the The 3rd International Conference on Industrial Engineering and Operations Management Istanbul, Turkey.*
- Kabak, I. W., & Siomkos, G. J. (1991). *Replacement after a product harm crisis. Industrial Management*, 33(5), 25-26.
- Kamrul Ahsan. (2013). *Trend Analysis Of Car Recalls: Evedence From US Market. International Journal of Managing Value and Supply Chains (IJMVSC) Vol.4, No. 4, December 2013*
- Koniewski, Maciej. (2012). *Brand Awareness and Customer Loyalty. The Journal of Political Economy*, 19 (3), 425-439.
- Lucky, B., & Takim, S. (2015). *Manufacturing Defects in the Automobile Industry, a Case Study of the Remote Causes and Effects of Toyota's Transmission Malfunctions in Cars. IJEAS*, 2, 15-28.
- M. Hora, H. Bapuji, and A. V. Roth. (2011). *Safety hazard and time to recall: The role of recall strategy, product defect type, and supply chain player in the US toy industry. Journal of Operations Management*, vol. 29, pp. 766-777.
- Mariana Hammel Brandao (2016). *The influence of Product Recall on customer Loyalty. The Journal of Political Economy*. pp. 56-70
- Mitchell, Mark and Erik Stafford (2000), "Managerial Decisions and Long-Term Stock Price Performance," *Journal of Business*, 73 (3), 287-329.
- N.Dawar and M.M.Pudurn. (2007). *Impact of Product-Harm Crises On Brand Equity: Threat or Opportunity. Journal of Business*, 23(2), 26 - 40
- Pearson, Christine and Judith Clair (1998), "Reframing Crisis Management," *Academy of Management Review*, 23 (1), 59-76.
- Prince, David and Paul Rubin (2002), "The Effects of Product Liability Litigation on the Value of Firms," *American Law and Economics Review*, 4 (1), 44-87.
- S. Kumar and E. M. Budin. (2006). *Prevention and management of product recalls in the processed food industry: a case study based on an exporter's perspective. Technovation*, vol. 26, pp. 739-750.
- Siomkos, G.J. (1999). *On achieving exoneration after a product safety industrial crisis. Journal of Business & Industrial Marketing*, Vol. 14 No. 1, pp. 17-29
- Siomkos, G.J. and Kurzbard, G. (1994). *The hidden crisis in product-harm crisis management. European Journal of Marketing*, Vol. 28 No. 2, pp. 30-41
- Souiden, N., & Pons, F. (2009). *Product recall crisis management: the impact on manufacturer's image, consumer loyalty and purchase intention. Journal of Product & Brand Management*, 18(2), 106-114.
- Wynne, A. J., & Hoffer, G. E. (1976). *Auto recalls: do they affect market share. Applied Economics*, 8(3), 157-163.