

**PREPAREDNESS OF RETAIL ORGANIZATIONS TO HANDLE EMERGENCY  
SITUATION**

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Abstract---This research is conducted to know the extent to which the new generation retail outlets of Kerala are formally prepared to face an actual situation of emergency. The presence of a workable emergency management plan is suggested by the State Disaster Management Authority to every organisation especially those functioning in high rise buildings and having an enclosed air conditioned environment. The study is an attempt to know whether the retail outlets which are mostly functioning in enclosed structures have thought about the risks associated with leaving their infrastructure unguarded, and whether they have a formal plan in place. Kerala is a state with peculiar geographical as well as demographical features. With a total land area of just 38,863 km<sup>2</sup> it is a narrow strip having a 580km border with the Arabian Sea in the west. Located in the southern tip of the country the state has a population density of 860people/km<sup>2</sup>, which according to the census data of 2011 is the highest in the country. Other unique features of the state includes its high literacy rate, high standard of living, narrow roads and a high Human Development Index. And with numerous lakes and rivers, mountain terrains and an ocean on one side the state is multi hazard prone. Over the last hundred years there had been a shift in the population profile of the state as well. The society of Kerala shifted from the agrarian level to a highly urbanized consumerist one. This has brought in a lot of retail outlets both of the national as well as the international brands. As the Kerala population is moving away from festival grounds and parks to these places for entertainment and leisure it is necessary to know how much the retailers are ready to handle a situation of emergency if one arise. The data collected for this study is from the two northern municipal corporations of the State namely Kozhikode and Kannur. The analysis revealed a picture which shows extend to which the function of emergency management is over looked and neglected in the retail outlets.

Keywords---Emergency, New Generation, Retail Outlets, Disaster management, manmade disaster.

## I. Introduction

Kerala, a small state in the south western corner of India is a land blessed with natural resources. A narrow strip of land, the State has the Western Ghats in the east and Arabian Sea in the west as its boundaries. The land may be divided in to three zones, on the longitudinal profile - the high land, the mid land and the low land which includes the coastal plain. The state has 14 Districts and is home for almost 3.5% of the country's population. With a density of almost 890 persons per km<sup>2</sup>, Kerala is three times densely populated as compared with the rest of the country.

KSDMA (Kerala State Disaster Management Authority) reveals that this narrow strip of land is prone to lightning attack (during the months of April, May, October and November), floods, a lot of landslides (especially in the mountain terrains), soil piping and coastal erosions. The records show the existence of minor landslides now and then and 65 major landslides between 1961 and 2009 causing fatal destructions including a lot of human casualties (Kuriakose, 2010). The number of landslides has increased after the floods of 2018 and 2019. During Kerala floods, of 2018 landslides were reported within a span of 5 days (Krishnakumar. 2018). The months that followed saw numerous aftershocks A recent landslide (16<sup>th</sup> July 2020) which had occurred in Pettimudi in the Idukki district has taken the lives of more than 50 people and many are still missing. The hilly areas of the state are also facing tunnel erosions and land subsistence which has a high potential for creating landslides.

Kerala is known for its high literacy rate. The state also boasts of its high standard of living and Human Development Index. This huge population with the risks presented above makes the state vulnerable to a lot of hazards. Apart from this the population profile of the state has changed from a basic agrarian society to an urbanized consumerist society in the last hundred years. Numerous retail outlets which are both National and International players are functioning in the state since the advent of this century. The shopping crowd of Kerala has since then been increased. The people who used to frequent festival grounds and picnic spots to spend a holiday have shifted themselves to supermarkets and malls. There have been reports of retail accidents and other disasters disrupting the functioning of retail outlets. The incidents of fire and building collapses have been reported occasionally and those of retail accidents have been comparatively

minor. So far these reports of minor incidents are ignored but if this trend continues soon the alarm will sound out a huge mishap.

The data published by Kerala State Disaster Management Authority points out that about 11.45% of the land area of Kannur and 12.30% of the land area of Kozhikode are prone to floods. 5.69% of the land area of Kannur and 4.64% of the land area of Kozhikode are prone to high intensity landslides and 9.20% of the land area of Kannur and 8.80% of the land area of Kozhikode are prone to low intensity landslides. 14.27% of the coastal belt of Kannur is prone to high intensity tsunami and 26.58% of the coastal belt is prone to low intensity tsunami. Also 44.68% of the coast line of Kozhikode is prone to high intensity tsunami and 10.69% to low intensity tsunami. The districts are also prone to lightning attacks during the monsoon seasons.

## **II. Background of the study**

- Reports of retail accidents have been coming in and the hazard profile of Kerala says that the state is prone to multiple hazards, both natural and manmade.
- At least two fire accidents that occur in commercial buildings are reported yearly.
- The state disaster management authority has revealed the need for an emergency management plan in all the establishments functioning in enclosed, air-conditioned environments in the high rise buildings.
- The shopping trend of Kerala reveal that the retail industry of Kerala will prosper with more and more people choosing to shop for pleasure than purchase.
- Minor retail accidents are happening in the new generation retail outlet and it is necessary to know how much the organisations are cautious about the risks they are exposing their customers to.

## **III. Objective**

The retail industry in Kerala is here to stay and grow. Being a state prone to multiple hazards this study aims to know how much the retail outlets are concerned about their safety measures in having a formal plan to handle disasters if they occur during shopping hours.

## **IV. Methodology.**

### **4.1 Scope.**

The research paper is based on the study conducted in two districts of north Kerala namely Kannur and Kozhikode. It covered the following aspects of the retail outlets namely types, the total number of employees, the nature of neighbourhood and surrounding areas, natural or man made features of the neighbourhood and details about the conditions of the building. The study should be helpful as it tries to bring out the relevance of the existence and usage of an emergency management plan to ensure safe shopping. The data used for the study includes secondary information from published sources like government manuals, the internet, research journals, news papers, magazines, books etc. The primary data was collected from the retail outlets functioning in the municipal corporation areas of Kannur and Kozhikode collected from the field using survey method, Interview schedule was used for the same. A sample study was done in ten retail outlets before deciding on the sample. The outlets which are comparatively new and those which are functioning in enclosed, air-conditioned environment and offering self-service option were selected for the study. The hypothesis was based on the assumption that the management of the outlets are neither aware nor are they ready to maintain a plan or a formal procedure to enable a systematic procedure to be followed if a disaster hits during shopping hours.

### **4.2 Data Description**

Data was collected about category of the retail outlet, the total number of employees, the nature of neighbourhood and surrounding areas, natural or man made features in the neighbourhood, details about the building and details about the existence of an emergency management plan, its renewal etc.

Table No. 4.1 Profile of the Retail Outlets

Profile of the retail outlets	Particulars	Kozhikode	Kannur	Total	
		Frequency	Frequency	Frequency	Percentage
Sample	Municipal Corporation	16	11	27	100.00%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
Type of retail outlet	Department Store	2	2	4	14.81%
	Super market	0	3	3	11.11%
	Hyper market	0	0	0	0.00%
	Specialty Store	11	0	11	<b>40.74%</b>
	Discount Store	1	0	1	3.70%
	Co-operative Store	0	0	0	0.00%
	Any Other	2	6	8	29.64%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
The total No. of Staff	1 - 10	3	4	7	25.93%
	10 - 20	7	2	9	<b>33.33%</b>
	21 - 30	0	2	2	7.41%
	31 - 40	2	1	3	11.11%
	41 - 50	4	2	6	22.22%
	>50	0	0	0	0.00%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
The nature of the neighborhood	Residential	0	1	1	3.70%
	Industrial	0	0	0	0.00%
	Commercial/Business	6	2	8	<b>29.64%</b>
	Markets/Shopping Centers	0	1	1	3.70%
	Not applicable	10	7	17	62.96%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
	Nature of the	Low Lying	6	3	9

<b>surrounding area</b>	Hilly/Mountainous	1	3	4	14.81%
	Marshy	3	1	4	14.81%
	Subject to vandalism/Riots	0	0	0	0.00%
	Any Other	6	4	10	37.05%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
<b>Natural/man made features in the immediate neighborhood</b>	River	6	1	7	25.93%
	Ocean	0	7	7	25.93%
	Lake	6	3	9	<b>33.33%</b>
	Factory	0	0	0	0.00%
	Airport	4	0	4	14.81%
	None	0	0	0	0.00%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
<b>Building Condition</b>	Independent Building	10	1	11	40.74%
	Part of another building	6	10	16	<b>59.26%</b>
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
<b>Tenure of the building</b>	1-5 years	6	4	10	<b>37.04%</b>
	6-10 years	7	0	7	25.93%
	11-15 years	1	3	4	14.81%
	16-20 years	1	0	1	3.70%
	>20 years	1	4	5	18.52%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>
<b>Part of another building- Which floor</b>	Ground Floor	1	2	3	11.11%
	1-3 floors	5	8	13	<b>48.15%</b>
	4 floor or above	0	0	0	0.00%
	Not applicable (Independent Building)	10	1	11	40.74%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>

<b>The spread over of the outlet</b>	1 floor	2	6	8	29.63%
	2 floors	6	4	10	<b>37.04%</b>
	3 floors	4	1	5	18.52%
	4 floors	4	0	4	14.81%
	> 4 floors	0	0	0	0.00%
	<b>Total</b>	<b>16</b>	<b>11</b>	<b>27</b>	<b>100.00%</b>

#### 4.2.2 Descriptive Analysis of the sample retail outlets.

The various socio-demographic profile of the retail shops are based on the data presented in Table No. 4. 1. 40.74% of the outlets were specialty stores followed by department stores and supermarkets. Majority of the outlets (33.33% or 9 no.s) have about 20 people as total staff. Six outlets (22.22%) have about 50 people employed. 29.64% of the outlets are in commercial/business areas. 62.96% of the outlets are in free standing locations inside the corporation area itself. 33.33% of the outlets are in low lying areas, 14.81% of the outlets are in hilly/mountainous areas and an equal percentage of outlets are on marshy lands. 33.33% of the outlets are situated near a lake, 25.93% of the outlets are near a river and an equal percentage of the outlets are in the vicinity of a beach. 14.81% of the outlets are on the route of the airport.

59.26% (16 no.s) of the outlets are functioning as part of another building whereas 40.74% (11 no.s) of the outlets are functioning in independent buildings. 37.04% (10 no.s) of the outlets are in comparatively new buildings i.e., those buildings that are less than 5 years old. 25.93% (7 no.s) of the outlets are in buildings between 6 and 10 years old., 18.52% of the outlets are in buildings more than 20 years old and 14.81% of the outlets are in buildings between 11 and 15 years old.

Table No. 4.1 also show the spread of the outlets in the buildings where they are functioning. 48.15% of the outlets ore in first to third floors and 11.11% of the outlets are in the first floor itself. 37.04% of the outlets are spread over 2 floors, 29.63% (8 no.s) of the outlets are spread over just one floor, 18.52% of the outlets are spread over 3 floors and 14.81% of the outlets are spread over 4 floors.

## V. Hypothesis

H<sup>o</sup>: Organisations are not formally prepared to handle emergency situations

## VI. Analysis

One Way ANOVA (Type of Retail Outlet and presence of Emergency Management Plan)

One Way Analysis of Variance (ANOVA) determines if there are any statistically significant differences between two or more independent and unrelated groups. This method was adopted to know if there is an Emergency Management Plan in retail outlets to help ensure them that they are formally prepared to face an emergency..

The results are presented in Table No. 6.1. The analysis was done included retailers from two districts:

- Kozhikode
- Kannur

<b>Table No. 6.1 One Way ANOVA (Type of Retail Outlet and Presence of Emergency Management Plan)</b>						
<b>Districts</b>	<b>Frequency of purchase</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>P value</b>
<b>Kozhikode</b>	Between Groups	.301	3	.100	.564	0.649
	Within Groups	2.136	12	.178		
	Total	2.438	15			
<b>Kannur</b>	Between Groups	.138	2	.069	1.117	0.357
	Within Groups	.800	13	.062		
	Total	.938	15			

(Level of significance – 0.05%)



According to Table No. 6.1, for the F Values of 0.564( $p = 0.649$ ) and 1.117( $p = 0.037$ ) for the districts of Kozhikode and Kannur respectively. It can be seen that the  $p$  values of Kozhikode and Kannur are more than the level of significance and so the null hypothesis is accepted. It clearly indicates that the retail outlets have overlooked the need for an emergency management plan in these two districts.

## **VII. Interpretation**

1. Majority of the retail outlets that are functioning in the districts of Kozhikode and Kannur are specialty stores followed by department stores and super markets.
2. Majority of the outlets have twenty or less than twenty people as their total staff. 6 outlets have up to 50 employees
3. Majority of the functioning in commercial areas or in free standing locations in the municipality area but outside the city.
4. More than 60% of the outlets have a water body near them. It is either a lake or a river or the sea.
5. Most of the outlets are functioning as part of another building which are comparatively new . However about 5 outlets are in buildings more than 20 years old.
6. Majority of the outlets are in the first three floors and spread over 1 to 3 floors.
7. The districts of Kozhikode and Kannur are prone to floods, landslides and occasional lightning attacks.
8. The Kerala Disaster Management Authority has suggested the preparation of an emergency management plan in every organisation function in multi storey buildings in association with the local disaster control bodies.
9. None of the retail outlets in Kozhikode and Kannur are maintaining the same.
10. The management and the employees are unaware of the importance of a workable emergency management system in the retail outlets.
11. It may further imply that the customers who frequent these outlets are also unaware of the risks they are getting exposed to while they are inside an enclosed environment for hours.

## **VIII. Conclusion**

The retail outlets of Kerala lack the seriousness in their preparation to ensure safe shopping for the customers along with all other kinds of luxuries and entertainments. This absolute unpreparedness may result in situations of utter helplessness if a disaster strike and may not give

any assistance to help mitigate the effects of the same. The recurring retail accidents in other parts of Kerala had alerted the state with the need for formal emergency management procedures. Preparedness helps a lot to mitigate and reduce the after effects of an emergency situation. This will be practical only if there is a formal plan with proper assignment of responsibilities for each organization for handling an emergency situation. The retail industry is predicted to stay and grow in Kerala. But Kerala has to go a long way in making emergency management necessity in key operating areas as part of good customer service.

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