


## Analysis Of Traders' Preparedness Behavior In Preventing Fires At The Masomba Market, Palu City

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Article Info	ABSTRACT
<b>Keywords:</b> Fire, Preparedness, Masomba Market.	Based on data from the Palu City Fire Department, fire incidents in Palu City tend to increase from 2018 to 2022. Masomba market is one of the traditional markets in Palu City which frequently experiences fires. Based on initial observations made, a major fire hit the Masomba market in Palu City on Wednesday evening, November 30 2022. The aim of this research is to analyze the preparedness behavior of market traders in dealing with fires at the Masomba Market in Palu City. This research uses quantitative methods with a cross sectional approach. The population in this study was 274 traders in the Masomba market in Palu City. The sampling technique in this research was determined by simple random sampling with a total sample of 73 respondents. Data collection uses a questionnaire. The data tests used in this research are univariate and bivariate tests (Chi-Square Test). The results of the research show that there is no relationship between knowledge and attitudes towards traders' preparedness in dealing with fires at the Masomba market, but in terms of training there is a relationship between training and traders' preparedness in fighting fires at the Masomba market. The suggestions in this research are that Masomba market traders are expected to take part in training held by the Palu City Industry and Trade Service or the Palu City Fire and Rescue Service.
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### INTRODUCTION

Disaster is an event or series of events that threatens and disrupts people's lives and livelihoods which can be caused by natural or non-natural factors as well as human factors, resulting in loss of life, environmental damage, loss of property and psychological impacts [1]. Non-natural disasters are caused by epidemics, outbreaks, conflicts and so on. Apart from that, disasters can also be caused by human actions, such as floods due to illegal logging or fires due to short circuits in electricity [2].

One of the non-natural disasters is fire. Fire is uncontrolled fire beyond human capabilities and desires so it is a disaster that often occurs in society, especially in residential areas, workplaces and urban areas and causes large losses in terms of loss of life, injury and material loss. Fire occurs because there is a combustion process between three elements that are united, where if one element is not present then the combustion process will not occur. These elements are known as the fire triangle, namely fuel, oxygen and heat [3]

Fire incidents occurred in many countries, one of which in the United States from 2012 to 2014 experienced an increase based on data from the National Fire Protection Association (NFPA) Fire Analysis and Research. There were 2,929 cases of fire disasters in Indonesia from 1997 to 2018. This resulted in deaths and damage to homes and health facilities [4]

According to the Directorate of Markets and Trade Centers in 2020, the number of traditional markets in Indonesia was 16,235 units with a percentage of 88.39%. According to data from the Central Leadership Council of the Indonesian Market Traders Association (DPP IKAPPI), the number of fire cases that occurred at the beginning of 2021 increased significantly, with losses of around 4,028 kiosks and stalls affected and losses of tens of billions from 35 fire cases until April 2021. This problem occurred due to the lack of management and supervision from the government, not only that, it is necessary to pay attention to rescue elements, active and passive protection systems, supervision and control of market fires [5]

According to data from the Palu City Fire Department, fire incidents in the city of Palu tend to increase from 2018 to 2022. In 2018, fire incidents in the city of Palu were recorded at 104 cases and increased in 2019 to 171 cases, but in 2020 there was a decrease in fire incidents by 143 cases, then experienced another increase in cases in 2021 with 160 cases and continued to increase in 2022 with 180 cases. The impact or loss experienced during the fires from 2018-2022 was that hundreds of sales stalls were burnt down and the estimated loss was around hundreds of millions of affected sales stalls.

Based on initial observations made, a major fire hit the Masomba market in Palu, Wednesday night (30/11/2022). A total of 4 fire engines were deployed to extinguish the fire which destroyed a number of stalls in the market. The fire trucks were deployed in each of the four directions east, west, north and south to extinguish the fire which destroyed dozens of stalls located in the middle of the traditional market area in the city of Palu starting at around 21.00 WITA.

## METHOD

The type of research used is quantitative research with a cross sectional approach. Cross Sectional Research is a research role to study the dynamics of the correlation between risk factors by means of an observational approach or collecting data at one time [6] This research was carried out at Masomba Market, Palu City. In this research, samples were taken using a simple random sampling method. Tabulated data is processed manually or on a computer so that it can be analyzed.

## RESULTS

### Univariate Analysis

**Table 1** Distribution of Respondents Based on Knowledge of Masomba Market Traders in Palu City

Knowledge	N	%
Good	51	69,9
Not Enough	22	30,1

Knowledge	N	%
Amount	73	

Source: Primary Data, 2024

Based on table 1 above, it is known that the distribution of knowledge among Masomba market traders in Palu City is the highest, namely 51 respondents who have good knowledge with a percentage of 69.9%.

**Table 2** Distribution of Respondents Based on Attitudes of Masomba Market Traders in Palu City

Attitude	N	%
Good	57	78,1
Not Enough	16	21,9
Amount	73	100

Source: Primary Data, 2024

Based on table 2 above, it is known that the distribution of attitudes among Masomba market traders in Palu City, the highest, namely 57 respondents, had a good attitude with a percentage of 78.1%.

**Table 3** Distribution of Respondents Based on Training at Masomba Market Traders in Palu City

Training	N	%
Once	31	42,5
Never	42	57,5
Amount	73	100

Source: Primary Data, 2024

Based on table 3 above, it is known that the distribution of training among Masomba market traders in Palu City was the highest, namely 42 respondents who had never participated in training with a percentage of 57.5%.

**Table 4** Distribution of Respondents Based on Preparedness of Masomba Market Traders in Palu City

Preparedness Behavior	N	%
Good	42	63,0
Not Enough	31	37,0
Amount	73	100

Source: Primary Data, 2024

Based on table 4 above, it is known that the distribution of preparedness among Masomba market traders in Palu City, the highest, namely 42 respondents, had good preparedness with a percentage of 63.0%.

## Bivariate Analysis

**Table 5** Relationship between Knowledge and Traders' Preparedness Behavior in Handling Fires at the Masomba Market, Palu City

Knowledge	Preparedness Behavior						<i>p Value</i>
	Not Good		Good		Total		
	n	%	n	%	N	%	
Not Enough	12	38,7	10	23,8	22	30.1	0.170
Good	19	61,3	32	76.2	51	69.9	
Total	31	100	42	100	73	100	

Source: Primary Data, 2024

The data in table 5 shows that respondents who have good knowledge are more likely to have good preparedness behavior, namely 32 respondents (76.2%). compared to those who had less good preparedness behavior as many as 19 respondents (61.3%). Based on the Chi-Square test carried out with pValue results (0.170), because the p value is > 0.05, it can be said that there is no significant relationship between knowledge and preparedness.

**Table 6** Relationship between attitudes and traders' preparedness behavior in handling fires at Masomba Market, Palu City

Attitude	Preparedness Behavior						<i>p Value</i>
	Not Good		Good		Total		
	n	%	n	%	N	%	
Not Enough	8	25,8	8	19,0	16	21,9	0.490
Good	23	74,2	34	81,0	57	78,1	
Total	31	100	42	100	73	100	

Source: Primary Data, 2024

The data in table 6 shows that respondents who have a good attitude are more dominant with good preparedness behavior, namely 34 respondents (81.0%) compared to those who have less good preparedness behavior, namely 23 respondents (74.2%). Based on the Chi-Square test carried out with pValue results (0.490), because the p value>0.05, it can be said that there is no significant relationship between attitudes and preparedness behavior.

**Table 7** Relationship between training and trader preparedness behavior in handling fires at Masomba Market, Palu City

Training	Preparedness Behavior						<i>p Value</i>
	Not Good		Good		Total		
	n	%	n	%	N	%	
Not Yet	27	87,1	15	35,7	42	57,5	0.000
Once	4	12,9	27	64,3	31	42,5	
Total	31	100	42	100	73	100	

Source: Primary Data, 2024

The data in table 7 shows that more respondents who have never attended training have poor preparedness behavior, namely 27 respondents (87.1%) compared to respondents who have attended training who have good preparedness behavior, namely 27 respondents (64.3%). Based on the Chi-Square test carried out with pValue results (0.000), because the p value  $< 0.05$ , it can be said that there is a significant relationship between training and preparedness behavior.

## Discussion

### The Relationship Between Knowledge And Fire Preparedness

The research results show that there is no relationship between knowledge and preparedness. Data shows that good knowledge does not guarantee good preparedness practices. It can be interpreted that traders at the Masomba market have poor knowledge because fire disasters often occur, so market traders assume that fire disasters are commonplace so knowledge about fire disasters is no longer important for traders.

This research is in line with research conducted by Ryan Mahendra Linuwih on the occupants of the Pt. Sango Ceramics Indonesia stated that there is no relationship between knowledge and fire emergency response preparedness. Based on the research results, it can be concluded that good knowledge does not guarantee good preparedness practices if there is no regular addition of information about fire prevention and preparedness [7]

This research is not in line with Fitriyani's theory (2021) which states that the knowledge a person has can influence a person in determining attitudes and concern to be prepared to anticipate disasters. Someone who has higher knowledge is expected to be more mature when facing the possibility of a disaster, because knowledge is the basis of awareness for carrying out emergency planning [8]

Good knowledge of traders at the Masomba market does not guarantee that traders' preparedness is also good when a fire occurs and other factors such as the lack of regular information about fire prevention and preparedness that has not been carried out at the Masomba market as well as a lack of market facilities and infrastructure or inadequate.

### The Relationship Between Attitude And Fire Preparedness

The results of the research show that there is no relationship between attitude and preparedness. Data shows that a person's positive attitude will have a direct impact on a person's behavior because attitude is an important factor for action. However, there must be supporting factors such as facilities and support from other parties which are factors to turn attitudes into real action. Based on the Chi-Square test carried out with pValue results (0.490), because the p value is  $> 0.05$ , it can be said that there is no significant relationship between attitude and preparedness.

This research is in line with research conducted by Ajzen Theory (2005) in the world of psychology, the theory of planned behavior is a theory related to the relationship between beliefs and behavior. This theory states that attitudes towards behavior, subjective norms, and perceived behavioral control, together form an individual's behavioral intentions [9]

These results are not in line with Lawrence Green's theory, namely that attitude is one of the predisposing factors that influences behavior, especially preparedness in fire prevention efforts at the Masomba Market, Palu City. This discrepancy is caused by them

feeling that fire disasters occur too often, so knowledge is not important for market traders. Market traders' poor knowledge also influences traders' attitudes to be less good.

The attitude of traders at the Masomba market is good, but there is a lack of supporting factors such as infrastructure and the surrounding environment that are needed to translate this attitude into appropriate disaster management actions or activities. The obstacles faced when a fire occurs are the lack of facilities and infrastructure, such as water being difficult to access during a fire and fire extinguishers which are not generally available because there are traders who have fire extinguishers, but these tools are only kept in their kiosks or places of sale.

### **Training**

The results of the research show that there is a relationship between training and preparedness behavior. Data shows that Masomba market traders who received training had better preparedness behavior in facing fire disasters compared to market traders who did not receive training because providing direct training can support their abilities and skills to implement fire prevention.

This research is in line with research conducted by Marfuah, U. et al (2021) that fire prevention and handling training activities can provide knowledge about the factors that cause fires at home and know the preventive measures, so that it can encourage community awareness to reduce the potential danger of fires that can be done. in daily activities [10]

The training carried out for traders by the Palu City Fire and Rescue Service and the Palu City Regional Disaster Management Agency was only attended by a few traders and only the same traders took part in the training due to several obstacles experienced by traders starting from lack of information. spread out so that some traders were not aware of the training and there were also some traders who were only called by their colleagues to take part in the training, so it can be concluded that information related to the training held was not spread evenly to traders so only a few traders took part in the training .

## **CONCLUSIONS**

Based on the results of research conducted at the Masomba City market, it can be concluded: There is no relationship between knowledge and traders' preparedness behavior in dealing with fires at Masomba Market, Palu City. There is no relationship between attitudes and traders' preparedness behavior in dealing with fires at Masomba Market, Palu City. There is a relationship between training and traders' preparedness in dealing with fires at Masomba Market, Palu City. Palu City Masomba Market Traders are advised to take part in training held by the Palu City Fire and Rescue Service and the Palu City Regional Disaster Management Agency. Apart from that, it is recommended that this research be a reference for literature in public health science and increase knowledge, especially in the field of occupational safety and health. Then for future researchers to pay more attention to other factors that can influence preparedness in dealing with fires, such as the involvement of market traders. It is also recommended for future researchers to use qualitative methods or more in-depth interview techniques.

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