# Applying the perspective of regional competitiveness of urban resilience A Study on Improvement of life safety Index

Lim Sehun, Jeong Kyungok,

*Affiliation1<sup>1</sup> Affiliation1<sup>2</sup> lim0657000@naver.com, jkocs@naver.com* 

> Lee Dongeun Affiliation1<sup>3</sup> imeun07@daum.net

#### Abstract

In recent years, different natural and social disasters have occurred in different regions of the city, and in the field of life safety, unsafe risks continue due to various safety hazards. Therefore, there is a growing interest in urban resilience and regional security indices, and the need for research is emerging.

Urban Resilience is a series of activities aimed at minimizing the damage caused by a disaster in a city. Urban resilience is the strengthening of resilience to physical and non-physical factors needed to recover the damage that occurred in the city and the systematic operation of structural and non-structural measures. According to Article 66-10 (Publication of Safety Index) of 「Disaster and Safety Management Basic Act」, the Minister of Public Administration and Security develops and examines the index indicating the level of safety and safety consciousness objectively (hereinafter referred to as "safety index"), Can be published.

The regional safety index is a measure of safety level in seven areas (fire, traffic accident, natural disaster, crime, life safety, suicide, infectious disease). These regional safety indexes play the following roles in order to strengthen local government safety management responsibility and to promote autonomous improvement of vulnerable sectors.

First, it can be utilized for the safety management activities and support of local governments and the central government by providing safety indices of each area using statistics. Second, municipalities can perform efficient safety management tasks by easily judging areas with low safety. Third, the central ministries can improve the safety level of the whole country by supporting municipalities with low safety index by sector.

<sup>&</sup>lt;sup>1</sup> Lim Sehun, Department of Disaster and Safety Management at Soongsil University,

<sup>&</sup>lt;sup>2</sup> Jeong Kyungok, Department of Disaster and Safety Management at Soongsil University

<sup>&</sup>lt;sup>3</sup> Lee Dongeun, Department of Disaster and Safety Management at WooSeok University

However, there are limitations in many aspects of the regional safety index. There are no practical safety measures that reflect the inherent environmental factors of each region, humanities and social, industrial and economic indicators that are not directly related to the level of safety in each region.

This study is based on the concept of 'regional competitiveness' among the five concepts of 'urban robustness', 'redundancy', 'rapidity', 'resourcefulness' and 'regional competence'. The purpose of this study is to find out the improvement plan for the problem of diagnosis of local safety index by applying the living safety in the regional safety index.

In conclusion, the inherent environmental factors of each region are derived and reflect the characteristics of regional competitiveness. Through this, the local safety index improves the accuracy of the life safety figures, thereby improving the acceptance of local governments and securing the reliability of the safety indices in the internal and external regions.

#### Keywords

: Regional Safety Index, Urban Resilience, Life Safety, Regional Competitiveness

# Introduction

Recently, the central government introduced a regional safety index to measure the safety of each province.

However, the accuracy of the regional safety index is considered to be low. For example, there was a recent fire at a nursing home in Gimpo, and the living safety index in Gimpo is good results.

In addition, various events and accidents are less relevant to the actual local safety index. Therefore, public officials and citizens in charge do not trust the accuracy of the index.

In this paper, attention is given to the resilience of the city. In terms of urban resilience, the government seeks improvement measures by applying living safety among regional safety indicators to regional competitiveness areas

# Main heading

Regional safety generally includes six areas. These are areas of fire, crime, living safety, traffic accidents, suicide and infectious diseases. These regional safety indices are published annually by the government

But in reality, there are many problems.

- 1) The general public is less reliable about the local safety index.
- 2) Local governments have low reliability in terms of their regional safety index
- 3) The government is trying to improve the regional safety index problem.

Another way to improve reliability is to link urban resilience to regional safety indexes. Because I believe that the spatial view of urban resilience is important.

It is no longer correct how the direction of the regional safety index is assessed by general numbers and data. Spatial and environmental approaches to the regional safety index are needed from a recovery perspective.

Urban resilience has durability, substitution, rapidity, resource mobilization and regional competitiveness.

This study focused on regional competitiveness. Regional competitiveness is an index that takes into account the characteristics

A study on ways to improve the regional safety index on the regional competitiveness of urban resilience was conducted.

A study was conducted on the safety of living, especially among the local safety indexes. Currently, the index evaluation and measurement of living safety is looking into the status of falls and falls.

However, it is rare for an ordinary person to fall and get hurt. Living safety should improve the investigation of a person's injuries.

First, living safety is divided into the general public and the safety vulnerable class. There are more accidents in safety and vulnerability classes than in ordinary people.

The safety vulnerability layer has a definition of the safety vulnerability layer in Article 3 of the Basic Act on Disaster and Safety Management

The safety and vulnerability classes are specified as children, the elderly and the disabled. The point of view of living safety should be changed directly to children, the elderly and the disabled.

Facilities related to children, the elderly, and the disabled should be investigated. The status of facilities such as kindergarten and elementary school, which are children's facilities, should be investigated. The elderly should investigate facilities such as senior citizens' facilities, welfare facilities and nursing homes, and the disabled should investigate facilities for the disabled.

Efforts are required to investigate accidents and risks of facilities used by the safety vulnerable group and to reduce accidents and risks.

This view should be linked to the regional competitiveness of urban resilience. Regional competitiveness is for the safety of local areas. To link with regional competitiveness, a census is conducted on how many children, the elderly and the disabled are in the province. As a result of these census, the more vulnerable the population should be, the more facilities related to the safety vulnerable.

Second, accident investigation of the safety vulnerable class is needed for accuracy of living safety. The government needs to investigate safety accidents involving children, the elderly and the disabled. The medical institution investigates safety facilities such as children, the elderly and the disabled in each local area, and takes countermeasures against facilities where safety accidents occur. Safety measures for these accident-causing facilities are the way to improve the living safety index and the way to improve regional competitiveness in terms of urban resilience.

Third, the target audience for the safety vulnerable group is expanded. It is extended from the targets of children, the elderly and the disabled as specified in the Framework Act on Disaster and Safety Management. Each local government conducts a census of pregnant women, foreigners, North Korean defectors, and boys and girls who can become the safety vulnerable in the region in order to strengthen the regional competitiveness of urban recovery.

It is required to expand the target of safety vulnerable layers. Pregnant women are dangerous to safety accidents and are less capable of coping with accidents. Foreigners have limited communication and are less able to cope with accidents. North Korean defectors have low social adaptations and are less able to cope with accidents. Boy households are vulnerable to safety risks and their facilities and environment.

And safety facilities should be set up and strengthened according to the results investigated. These efforts are important to improve the living safety index and enhance its realism.

Regional safety is, in conclusion, a reduction in human-induced accidents. Accidents by people are dangerous and the number of accidents caused by safety vulnerable groups is high compared to ordinary people.

Safety facilities and environment shall be improved for facilities used by the safety vulnerable groups.

These efforts will contribute to improving and improving the living safety index

# Sub heading

The urban resilience perspective is applied to improve the local safety living safety index. It will study the relationship between regional competitiveness from the perspective of urban resilience. For regional competitiveness, the public and the safety vulnerable classes in local areas are investigated and the local characteristics are applied to the safety vulnerable groups.

- Children, the elderly and the disabled as specified in the Framework Act on Disaster and Safety Management
- Pregnant women, foreigners, North Koreans, orphans
- Other targets vulnerable to disasters and safety

There are more accidents caused by the vulnerable than the average person.

If safety of the vulnerable class is ensured in such a safety environment, the safety of the general public is improved

And the safety of the safety vulnerable class in regional safety helps improve the safety culture and image of the local area

# Conclusion

In this study, we approached the facilities and environment from the perspective of regional competitiveness of urban resilience. In addition, they sought ways to improve their living safety index in the regional safety index. In order to improve the living safety index, it should be approached by dividing the public into the safety vulnerable groups. To this end, we investigate children, the elderly, and the disabled and approach them from an urban resilience perspective.

Previously, the index looked at falls and falls.

But the direction of improvement is to investigate the safety vulnerable groups of children, the elderly and the disabled and to improve the safety of the facilities they use. To this end, the competitiveness of each local area will be introduced.

The institution analyzes the presence of facilities and environment according to the number of children, the elderly and the disabled in each local area.

In addition, these studies are further developed to expand the target audience for the safety vulnerable group.

In addition to children, the elderly and the disabled, the government will expand the number of pregnant women, foreigners, North Korean residents and children's children who are exposed to safety risks.

Research should be continued to reflect the government's application and safety index on the measures proposed in the direction of improvement in this study.

# Acknowledgment

Thank you for your advice on improving the regional competitiveness of urban resilience and the local safety safety index during this study. And I want to thank all of you for helping me with my research.

# References

### Websites:

https://en.wikipedia.org/wiki/Urban\_resiliencet. Last Accessed 10 October 2019.

# Journal Article:

Hong Saheum et al.(2017) Urban Resilience Planning for Secondary Cities : Empirical Policy Guide for Developing Countries. Korea Research Institute for Human Settlements

### **Report:**

Shin JinDong.(2015) Development of Regional Safety Management Framework and Risk Management Technology. National Disaster Management Research Institute,