



Analysis of Firefighter Competencies in Improving Employee Performance at the Semarang City Fire Department

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Abstract. This study aims to identify and analyze the competencies of firefighters at the Semarang City Fire Department. The research uses a qualitative descriptive approach. Data were collected using questionnaires distributed directly to 57 firefighters in Semarang City. In-depth interviews were also conducted with key informants to uncover specific aspects of competency and professionalism as related to performance achievements. Firefighters generally have skills in handling fire incidents and are also required to be capable of conducting rescue or evacuation efforts, including securing the incident area to prevent the spread to the surrounding environment. Key competencies required of a firefighter include teamwork, basic managerial skills, communication, problem-solving, and interpersonal abilities. These competencies are the foundation of high-level firefighter performance and must not be overlooked. A lack of training in both soft and hard skills may result in public dissatisfaction. Regular training and improvements in supporting infrastructure are needed to enhance individual performance and increase public satisfaction with firefighting services.

Keywords: Competency, Firefighter Performance

1. Introduction

Public service is one of the core components of government operations. To achieve optimal public service, excellent and integrity-driven human resources are required. Enhancing human resource competencies is necessary to develop the abilities of civil servants, which in turn impacts work efficiency, effectiveness, individual achievements, and improves public satisfaction.

The formal education of civil servants is often insufficient to meet the quality standards necessary to achieve optimal performance. These standards include knowledge, understanding, ability, attitude, interest, discipline, training, skills, education, and development. Thus, competency enhancement outside formal education is expected to improve effective, efficient, and professional performance.

This condition also applies to civil servants at the Semarang City Fire Department, who require competency development to enhance performance. This aligns with Ministry of Home Affairs Regulation No. 16 of 2009 on Firefighter Qualification Standards in the Regions, which mandates proper training, utility, and on-field action to enhance firefighter capacity, particularly in disaster management skills.

The Semarang City Fire Department, as a government agency for fire prevention and extinguishing, currently faces challenges in performance partly due to unequal training distribution and inadequate infrastructure. This can lead to skill disparities among personnel and affect public satisfaction.

Hence, improving firefighter competency is urgent. This research aims to analyze the competencies of firefighters and their impact on performance at the Semarang City Fire Department.

2. Literature Review

Several previous studies support the relevance of this research:

- Hardiyanti (2017): Used qualitative descriptive analysis to reveal five dimensions influencing staff competency in public service.
- Puspitasari (2018): Employed purposive and snowball sampling; found mismatches between education background and job roles.
- Utami (2018): Found competency in environmental agencies adequate but not optimal.
- Talembanua (2020): Showed HR competencies at the Civil Registration Office of Gunungsitoli were generally adequate.
- Nurhidayah (2022): Found competencies in the regional disaster agency to be sufficient.
- Astuty (2021): Analyzed the effect of workplace competency and motivation on the performance of civil service police and firefighters.
- Sumino (2023): Explored firefighter performance in Klaten in relation to knowledge, training, competencies, and motivation.
- Khamami (2024): Focused on the implementation of firefighter qualification standards.
- Ferziah & Pratama (2023): Studied the Surabaya Fire Department's strategies for handling fires.
- Gilang (2021): Examined efforts to improve the quality of aviation rescue and firefighting personnel at Dewandaru Airport.

2.1. Analysis Concept

Analysis is a detailed observation process involving the breakdown of components or their assembly for further study (Prawiro, 2020). The Indonesian Dictionary defines it as an investigation to find out the real condition of an event or matter.

2.1.1. Competency Concept

According to Arief & Nisak (2022), competency is a characteristic based on individual work efficiency, closely linked with evaluation criteria. Zwell (in Wibowo, 2010) identifies factors influencing competency: beliefs and values, skills, experience, personality traits, motivation, emotional issues, intellectual abilities, and organizational culture.

2.1.2. Types of Competency

Covey, Roger & Rebecca Merrill (in Mangkunegara, 2014) divide competencies into three categories: Technical Competency, Conceptual Competency, and Life Competency.

Competency Indicators (Moechariono, 2013):

- Knowledge
- Skill
- Attitude

2.2. Definition of Firefighters

Firefighters are responsible for extinguishing fires, rescuing victims, and handling emergencies such as accidents, natural disasters, or hazardous material leaks. They must act swiftly, educate the public about fire prevention, and maintain physical and mental readiness under pressure.

2.3. Performance Concept

Sedarmayanti (2020) defines employee performance as the achievements of individuals or groups in fulfilling tasks and responsibilities ethically and legally to achieve organizational goals. Influencing factors include leadership, managerial style, organizational culture, compensation, job satisfaction, discipline, and work environment.

Performance Indicators (John Miner in Edison, 2017):

- Quality
- Quantity
- Timeliness
- Cooperation with others

3. Research Method

This is a descriptive study using a qualitative approach based on post-positivism to explore natural settings and social phenomena through deep interaction.

Primary data were collected via questionnaires; secondary data from documents, books, and official archives. The study population included rescue team members of the Semarang City Fire Department. A saturated sampling technique was used, meaning the entire population was sampled, which is feasible for populations under 100. Data were analyzed using simple percentage calculations and qualitative descriptions, following the formula from Muhammad Ali (1998):

$$P = \frac{(F/N)}{1} \times 100\%$$

P = Percentage, F = Frequency of responses, N = Total

respondents Competency levels:

- 67–100% = Competent
- 34–66% = Moderately Competent
- 0–33% = Not Competent

4. Results and Discussion

Knowledge Indicator:

- 94.74% said SOP knowledge is important.
- 85.96% said SOPs reduce mistakes and damage.
- 92.98% said team solidarity knowledge is important.

Skill Indicator:

- 92.98% said OHS knowledge is influential.
- 92.98% said travel-time management skills are necessary.
- 96.49% said adaptability and teamwork are essential.

Attitude Indicator:

- 87.72% said patience under pressure is vital.
- 89.47% said responsibility and integrity are influential.
- 94.74% said professionalism and seriousness are necessary.
- 94.74% agreed firefighters must always be alert.
- 80.70% said effective scheduling affects performance.

Recapitulation Table:

No Competency Indicator Competent (B) Moderate (CB) Not (TB) Total

1	Knowledge	156	15	0	171
2	Skills	182	9	0	171
3	Attitude	255	28	2	285
Total		573	52	2	627

- Competent: 91.39%
- Moderately Competent: 8.29%
- Not Competent: 0.32%

Discussion

Findings confirm that Semarang firefighters are generally competent. They understand SOPs, adapt well to equipment and teamwork, and manage time and risk effectively. Their professional and calm demeanor enhances performance in emergencies.

5. Conclusion

Based on the results, the competencies of firefighters at the Semarang City Fire Department—knowledge, skill, and attitude—are classified as competent.

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