OPERATIONAL RISK IDENTIFICATION AND RANKING IN POLICE OPERATIONS: PERSPECTIVE OF POLICE OFFICERS IN COTABATO POLICE PROVINCIAL OFFICE

PLTCOL. Celestino T. Daniel, Jr

Force Commander, 2nd Cotabato Provincial Mobile Force Company, Philippines

ABSTRACT

Police operations are inherently exposed to diverse risks arising from the nature of law enforcement duties, complex operational environments, and unpredictable human behavior. Effective policing therefore requires systematic identification and ranking of operational risks to ensure that potential threats are recognized, assessed, and prioritized. This study aimed to identify the operational risks encountered by police officers and determine their priority levels in police operations at the Cotabato Police Provincial Office. Using a descriptive quantitative research design, data were collected from police officers directly involved in police operations through a structured survey questionnaire. The instrument measured perceived operational risks in terms of their likelihood of occurrence and severity of potential impact, using a five-point Likert scale. Descriptive statistics, including weighted means and a risk matrix approach, were used to analyze and rank the identified risks. Findings revealed that environmental and resource-related risks, such as difficult terrain or remote locations and lack of operational equipment, were perceived as having higher priority compared to information- and communication-related risks. In contrast, risks related to communication and intelligence were perceived as lower priority, suggesting generally adequate internal coordination mechanisms. The findings provide baseline empirical evidence that may support risk-informed operational planning, resource allocation, and policy development in provincial police offices.

Keyword: *operational risk, police operations, risk ranking, provincial policing, risk management*

1. Introduction

Police operations are inherently exposed to a wide range of risks arising from the nature of law enforcement duties, operational environments, and unpredictable human behavior. Effective policing therefore requires systematic operational risk identification and risk ranking to ensure that potential threats are recognized, assessed, and prioritized before and during the conduct of police operations. Such processes are essential for safeguarding police personnel, maintaining public safety, and ensuring the successful execution of operational objectives.

In recent years, risk management and risk control have become increasingly significant across various organizational settings, extending beyond the private sector to include government institutions such as police agencies. In the context of policing, the growing emphasis on risk management stems from the nature of police work, which involves diverse daily activities that frequently expose personnel to multiple and potentially hazardous risk situations [3]. International and national policing frameworks emphasize the importance of structured risk management approaches as part of operational planning. However, in practice, risk identification and prioritization are often influenced by situational demands, available resources, officer experience, and organizational capacity. As a result, inconsistencies may arise in how risks are perceived, documented, and addressed at the operational level.

Institutional transformation within the Philippine National Police (PNP) has been a long-standing agenda, driven by the need to strengthen organizational effectiveness, credibility, and public trust [7]. For several decades, PNP

leadership has pursued reforms aimed at establishing systems and procedures that would enable the organization to fulfill its constitutional mandate more effectively. This transformation effort is the implementation of structured planning and performance management mechanisms designed to support risk-informed governance and operational decision-making.

The Cotabato Police Provincial Office operates within a highly dynamic and risk-laden environment, where police officers are routinely exposed to operational hazards. These conditions are characteristic of provincial policing contexts, where geographical complexity and resource constraints often intensify operational vulnerability. Research consistently shows that police officers' risk of harm is shaped by both external factors, such as community violence levels, crime rates, and situational encounters, and organizational factors, including staffing, training, and departmental policies. While fatalities in the line of duty are relatively rare, studies highlight that officers face persistently high risks of physical assault and serious injury during routine duties [2].

A key concern is the limited empirical documentation describing what specific operational risks are most commonly identified by police officers and how these risks are ranked in terms of priority at the provincial level. Existing studies on police risk management tend to focus on performance outcomes, leadership, or overall safety practices, with less emphasis on the descriptive profiling of operational risks themselves, particularly from the perspectives of frontline officers. This lack of baseline data creates a gap in understanding the current status of operational risk identification and ranking practices within provincial police offices.

In response to these gaps and operational challenges, this study seeks to describe the operational risks identified by police officers and to determine how these risks are ranked in the Cotabato Police Provincial Office. By documenting officers' perspectives on risk identification and prioritization, the study aims to provide baseline information that can support operational planning, policy review, and future research on police risk management at the provincial level.

Statement of the Problem

1. What is the level of identified operational risks in police operations in terms of:
    1.1 likelihood of occurrence, and
    1.2 severity of potential impact?
2. What is the priority level of the perceived operational risks in police operations?

2. METHODOLOGY

2.1 Research Design

This study employed a descriptive research design using a quantitative approach to systematically describe the operational risks identified by police officers and to determine how these risks are ranked in police operations at the Cotabato Police Provincial Office. A descriptive design is appropriate when the primary objective of the study is to document, characterize, and summarize existing conditions or practices without manipulating variables or establishing cause-and-effect relationships.

The quantitative approach enabled the researcher to measure and quantify police officers' assessments of operational risks in terms of their likelihood of occurrence and severity of potential impact. Through the use of a structured survey questionnaire, numerical data were generated to allow for the computation of frequencies, mean scores, and composite risk ratings. These numerical indicators facilitated the systematic ranking of identified operational risks into priority levels, such as high, moderate, and low.

2.2 Respondents and Sampling Technique

The participants of this study were one hundred-forty-six (146) police officers assigned in Cotabato Police Provincial Office. These officers were selected as respondents because of their direct involvement in police operations and their firsthand experience in identifying and managing operational risks. Their operational exposure enabled them to provide informed and reliable responses regarding the types of risks encountered during police activities and the perceived likelihood and severity of these risks. This study employed a purposive sampling technique.

Purposive sampling was deemed appropriate because the study required respondents who possessed specific characteristics relevant to the research objectives, namely direct involvement in police operations and experience with operational risk situations. By intentionally selecting police officers with operational exposure, the study ensured that the data collected were relevant to the identification and ranking of operational risks.

2.3 Research Instrument

The primary research instrument used in this study was a structured survey questionnaire designed to gather quantitative data on operational risk identification and risk ranking in police operations at Cotabato Police Provincial Office. The questionnaire was developed by the researcher based on established operational risk management principles and the specific objectives of the study.

The instrument consisted of two major parts. The first part focused on operational risk identification, where respondents were asked to indicate the types of risks they encountered during police operations. This section included a checklist of common operational risks such as armed confrontation, ambush, environmental hazards, insufficient personnel, and logistical constraints.

The second part of the questionnaire addressed risk assessment and ranking. Respondents were asked to rate each identified operational risk in terms of its likelihood of occurrence and severity of potential impact using a five-point Likert scale. Likelihood ratings ranged from very unlikely to almost certain, while severity ratings ranged from insignificant to severe. These numerical ratings enabled the computation of weighted means and composite risk scores, which served as the basis for ranking operational risks into priority levels.

2.4 Data Gathering Procedure

Prior to the conduct of the study, the researcher sought formal permission from the appropriate authorities of the Cotabato Police Provincial Office. A written request letter was submitted explaining the purpose of the study, the nature of the data to be collected, and the intended use of the findings. Approval was secured before the distribution of the survey questionnaire. Participation in the study was voluntary, and respondents were informed that their responses would be treated with strict confidentiality and used solely for academic purposes. Upon approval, the researcher coordinated with unit heads or designated personnel to facilitate the distribution of the survey questionnaires. The questionnaires were personally administered or distributed through authorized channels to ensure that only eligible police officers who were actively involved in police operations participated in the study. Clear instructions were provided to the respondents regarding the purpose of the survey and how to accomplish the questionnaire. Respondents were given sufficient time to answer the questionnaire to ensure thoughtful and accurate responses. Completed questionnaires were retrieved by the researcher within the agreed timeframe. The retrieval process ensured that all accomplished questionnaires were accounted for and that incomplete or invalid responses were identified. The collected data were checked for completeness, consistency, and clarity before proceeding to data encoding. Questionnaires with missing or unclear responses were excluded from the analysis to maintain data quality. After data collection, the responses were encoded into a computer-based spreadsheet for analysis. .

2.5 Statistical Treatment

To determine the level of identified operational risks in police operations in terms of likelihood of occurrence and severity of potential impact, weighted mean was used. To determine the priority level of perceived operational risks in police operations, a risk ranking procedure was applied using the risk matrix approach.

3. RESULTS AND DISCUSSION

3.1 Level of identified Operational Risks in Police Operations

Table-1: Level of Identified Operational Risks in Police Operations in Terms of Likelihood of Occurrence

Operational Risk	Mean	Likelihood of Occurrence
Armed confrontation with suspects	3.23	likely
Civilian interference during operations	3.12	likely
Exposure to natural hazards (e.g., floods, landslides)	3.08	likely
Ambush or surprise attacks	3.07	likely
Difficult terrain or remote locations	3.06	likely
Lack of operational equipment	3.03	likely
Fatigue due to extended duty hours	2.99	likely
Insufficient personnel	2.98	likely
Inadequate intelligence information	2.49	possible
Poor communication during operations	2.27	possible

Among the identified operational risks, armed confrontation with suspects obtained the highest mean score (M = 3.23), interpreted as likely. This means that police officers perceived this to have 26-49% chance of occurrence. This indicates that police officers frequently anticipate encounters involving armed suspects during the conduct of police

operations. The high likelihood of this risk reflects the inherently hazardous nature of law enforcement duties, particularly in areas where criminal activities and armed resistance remain prevalent.

In contrast, poor communication during operations registered the lowest mean score (M = 2.27), interpreted as possible. This means that police officers perceived this to have 6-25% chance of occurrence. This indicates that communication breakdowns are less frequently experienced compared to other operational risks. The relatively low likelihood may suggest that existing communication protocols, coordination mechanisms, and command structures within Cotabato Police Provincial Office are generally effective. However, the presence of this risk, even at a lower level, highlights the need for continuous monitoring and improvement of communication systems, particularly during complex or high-risk operations.

The results reveal that direct threat-related risks, such as armed confrontation and civilian interference, are perceived as more likely to occur compared to support-related risks, such as communication and intelligence issues. This pattern indicates that police officers in Cotabato Police Provincial Office are more frequently exposed to immediate, situational hazards inherent in field operations.

The results of the present study are consistent with the findings, which highlight the continuing challenges faced by police organizations in areas such as community engagement, institutional support, and the implementation of effective policing strategies [8]. These challenges point to underlying systemic concerns that are not isolated to a single unit but are evident across various regions and police departments. In addition, it was emphasized that police officers are routinely exposed to occupational hazards, including work-related injuries and health risks, underscoring the persistent safety concerns inherent in police work [4].

Table-2: Level of Operational Risks in Police Operations in Terms of Severity of Potential Impact

Operational Risk	Mean	Impact
Lack of operational equipment	3.15	moderate
Difficult terrain or remote locations	3.14	moderate
Insufficient personnel	3.10	moderate
Exposure to natural hazards (e.g., floods, landslides)	3.04	moderate
Fatigue due to extended duty hours	3.04	moderate
Civilian interference during operations	3.02	moderate
Ambush or surprise attacks	2.97	moderate
Armed confrontation with suspects	2.92	moderate
Poor communication during operations	2.77	moderate
Inadequate intelligence information	2.58	minor

Among the identified operational risks, lack of operational equipment obtained the highest mean score (M = 3.15), interpreted as having a moderate impact. This indicates that police officers perceive inadequate or unavailable equipment as a risk that can significantly affect operational outcomes. The absence of essential equipment may limit officers' ability to respond effectively to incidents, increase exposure to danger, and compromise both personnel and public safety.

In contrast, inadequate intelligence information recorded the lowest mean score (M = 2.58), interpreted as having a minor impact. This suggests that respondents generally perceive intelligence-related limitations as less severe compared to other operational risks. This perception may reflect existing intelligence mechanisms or coordination practices that help mitigate the adverse effects of incomplete information.

The findings indicate that resource- and environment-related risks are perceived to have greater potential impact on police operations than information- and communication-related risks. This suggests that physical and logistical constraints pose more immediate operational consequences for police officers in Cotabato Police Provincial Office. The results highlight the importance of ensuring adequate equipment and considering terrain-related factors in operational planning to reduce the potential impact of identified risks.

It was argued that the intensifying impacts of climate change over recent decades are likely to generate a range of criminogenic conditions that may weaken public safety and security [5]. Additionally, the shortages in equipment and logistical resources tend to heighten exposure to operational risks and impede prompt and effective responses during critical situations [6].

Moreover, the prominence of terrain- and equipment-related risks aligns with findings from police occupational safety studies, which suggest that environmental hazards and material constraints have more immediate operational impact than internal coordination challenges [1][9].These studies argue that while communication and intelligence systems are essential, their effects are often indirect and contingent upon the availability of physical resources and safe operating conditions.

Table-3: Level of Risk Priority

Operational Risk	Risks Priority Score	Rank	Priority Level
Difficult terrain or remote locations	9.58	1	moderate
Lack of operational equipment	9.54	2	moderate
Civilian interference during operations	9.43	3	moderate
Armed confrontation with suspects	9.43	3	moderate
Exposure to natural hazards (e.g., floods, landslides)	9.35	5	moderate
Insufficient personnel	9.24	6	moderate
Ambush or surprise attacks	9.10	7	moderate
Fatigue due to extended duty hours	9.08	8	moderate
Inadequate intelligence information	6.44	9	low
Poor communication during operations	6.31	10	low

Note:1-6 low,7-14 moderate, 15-25 high

Among the identified operational risks, difficult terrain or remote locations ranked first with a risk priority score of 9.58, classified as moderate priority. This indicates that environmental and geographical conditions are perceived as the most pressing operational concern among police officers. The combination of relatively high likelihood and moderate severity suggests that challenging terrain consistently affects mobility, response time, and operational coordination, making it a recurring operational issue that requires careful planning and logistical support.

In contrast, poor communication during operations ranked lowest with a risk priority score of 6.31, classified as low priority. This suggests that communication issues are perceived as less critical compared to other operational risks. The relatively low score may reflect effective communication systems and coordination mechanisms within the provincial police office.

The results indicate that environmental and resource-related risks dominate the higher risk priority rankings, while information and communication-related risks fall under lower priority levels. This pattern suggests that police officers in the Cotabato Police Provincial Office are more concerned with tangible, situational risks encountered during field operations than with internal coordination issues. The findings highlight the need for operational planning that gives greater attention to terrain-related challenges and equipment adequacy while sustaining effective communication and intelligence systems.

Environmental hazards and resource constraints have immediate and direct effects on officer safety and performance, often outweighing organizational or procedural risks [9]. Moreover, it was noted that operational environments characterized by geographical isolation and limited infrastructure place greater physical demands on police officers, thereby increasing the perceived severity and priority of such risks [1]. These studies support the present finding that physical and logistical constraints pose more immediate operational consequences than information-related challenges.

4. CONCLUSIONS

The operational realities of policing in the Cotabato Police Provincial Office are shaped more by external, situational conditions than by internal organizational processes. The frequent exposure to environmental and logistical risks indicates that police effectiveness and safety are largely contingent upon factors beyond immediate managerial control, such as terrain, resource availability, and field conditions. This implies that even well-structured coordination and intelligence systems may have limited mitigating effects when officers are deployed in physically demanding and resource-constrained environments.

This highlights the need to reconceptualize police risk management as a context-sensitive process, where strategic emphasis is placed on enhancing environmental preparedness and logistical resilience alongside sustaining effective internal systems. Addressing operational risk therefore requires adaptive planning that accounts for the dynamic and often unpredictable conditions under which police officers operate, particularly in provincial settings.

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