Role of Traffic Police in Managing Traffic in Dhaka City: Challenges and The Ways Forward

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ABSTRACT

The most controversial issue for Bangladesh in the recent decade is traffic congestion in Dhaka city. The problem of the city dwellers suffer most is traffic congestion which kills a huge amount of time, severely affecting both the normalcy of life and the pace of the economy. Effective traffic management largely depends on traffic police personnel. This study explores the challenges of traffic police and recommends policy action to tackle them. This study employs a qualitative methodology consisting of in-depth interviews and field observations to understand the challenges faced by Dhaka City traffic police officers. The study used a purposive sampling technique. The data was collected from both primary and secondary sources. Primary data was collected through the semi-structured interview method. All interviews were audio-recorded and transcribed line by before being subjected to thematic analysis. The study's findings reveal that traffic officials confront numerous obstacles, including health concerns, poor coordination, a lack of proper awareness of traffic rules among drivers and pedestrians, and inadequate training and human resources. The study's findings would provide policymakers with essential guidelines for resolving traffic police concerns to protect the transportation system by controlling traffic.

1. Introduction

Dhaka's traffic congestion has been Bangladesh's most contentious issue during the past decade (Khan et al., 2018). Dhaka, a city of opportunity, is regarded as one of the rapidly growing and uninhabitable cities in the world, and the primary reason it has been placed on the list of the most unlivable cities is that it has been developed without following minimum standards of urban planning. The problem which the dwellers of this city suffer most is the traffic congestion which kills a huge amount of time, severely affecting both the normalcy of life and the pace of the economy, and this problem mainly lies in the abundance of private cars and the absence of timely public transportation system (Sayed et al., 2017). Effective traffic management largely depends on the traffic police in Dhaka city because they are responsible for enforcing traffic laws and are cardinal to maintaining traffic order in the country. They are dedicated to serving the public by keeping the transportation system safe. In Bangladesh, traffic police constables, by job definition, are assigned to traffic control at traffic junctions, and traffic inspectors coordinate scheduled service within the assigned territory. Sergeants mainly perform patrol duties to address traffic violations and are responsible for the initial scene management of incidents (Ahmed et al., 2023).

Dhaka Transport Coordination Authority (DTCA), Dhaka City Corporation (DCC), Dhaka Metropolitan Police (DMP), Rajdhani Unnayan Kartipakkha (RAJUK), and Bangladesh Road Transport Authority (BRTA) are the five primary agencies that make up the city's current traffic management system. The Traffic Department of the Dhaka Metropolitan Police (DMP) is one of the critical agencies of the current traffic management system, responsible for controlling traffic flow in the city, enforcing traffic laws to ensure road safety, investigating road accidents, storing data, and analyzing accident data. During emergencies, traffic officers may help control crowds to ensure fire and rescue personnel can safely reach the scene. The tasks of traffic officers also include enforcing parking laws. The responsibility of traffic officers is to direct traffic during processions, roadworks, and accidents. Occasionally, traffic officers guide pedestrian foot traffic (Shaquille, 2019).

A deputy police commissioner oversees the traffic division with help from an assistant commissioner, an inspector, and a sergeant traffic policeman in the field. In Bangladesh, traffic police constables, by job definition, are assigned to traffic control at traffic junctions, and traffic inspectors coordinate scheduled service within the assigned territory. Sergeants mainly perform patrol duties to address traffic violations and are responsible for the initial scene management of incidents (Ahmed et al., 2023). According to the Dhaka Metropolitan Police, there are currently 107 traffic police boxes in Dhaka, 45 under the jurisdiction of the Dhaka North City Corporation and the remaining 62 under the jurisdiction of the Dhaka South City Corporation. Traffic officers typically do not need higher education. They receive on-the-job training and class instruction.

Congestion occurs when there is not enough capacity in the transportation system to meet the growing demand and when there are more cars on the road than lanes to accommodate them (Falcocchio & Levinson, 2015) and (Tang & Hu, 2019). Dhaka, the capital of Bangladesh, is the world's most densely inhabited metropolis. More than twelve million individuals reside in Dhaka. The number is increasing daily, and a massive traffic deadlock severely impacts most of Dhaka. Most urban office workers must commute to and from their workplaces daily. However, commuters now worry more than ever about sitting in traffic. Because congestion is detrimental to the environment and the economy, several studies have identified a negative impact on everyday commuters' mental and physical health due to traffic congestion (Ali et al., 2021). Transportation development is one of the critical indicators of a country's progress. Bangladesh is also attempting to enhance its transportation infrastructure as a developing nation, but the need for a suitable planning and traffic control system creates obstacles. However, private automobiles, illegal parking, malfunctioning traffic signaling

systems, drivers' desire to pass, violations of traffic laws, and the maintenance of VIP protocol as the primary causes of traffic congestion (Khan et al., 2018; Sabbir, 2022).

Traffic Management mainly deals with planning, organizing, coordinating, and regulating traffic operations to ensure safe, appropriate, and economical transportation of persons and goods in a city. It has four aspects popularly known as Enforcement, Education, Engineering, and Environment (4 E's). Enforcement is one of the most significant aspects of traffic management, which runs the traffic orderly by ensuring the implementation of city traffic rules and regulations. Besides, Traffic education includes awareness and knowledge of traffic rules among the public, and educational efforts should be attached to strict enforcement. The engineering aspect deals with planning, geometric design, and traffic processes of roads, streets, highways, and networks. Environment deals with issues like Control of environmental pollution and improving the quality of the environment (Sofi & Sen, 2022). However, another research got similar findings regarding this issue. They reported that a country's social, economic, and environmental success depends on a well-organized traffic management system with an ever-increasing population, rapid industrialization, and sustainable infrastructure development. An effective traffic management system includes a sufficient number of traffic police and traffic signals, proper traffic alignment and markings, and legitimate traffic rules and regulations to reduce human suffering and insecurity (Hasan & Chowdhury, 2021).

Some research has been conducted on traffic management systems in Dhaka city. A research article entitled "Traffic Scheduling Simulation: The Case of Dhaka City" Stated that Because of the Increasing rate of vehicles on the road, as well as faulty and manual traffic signaling systems, results in massive traffic congestion in Dhaka, and Traffic Scheduling is very important for solving the problem of Traffic Jam in Dhaka city (Hossain et al., 2017). The need for safe and secure transport demand has increased in Dhaka city. Community-based transport can play an essential role in reducing the burden on the private mode of transportation. With widespread use, this service can reduce traffic congestion during peak periods (Das et al., 2022). Another research investigated Several measures, such as road capacity extension, upgraded road infrastructures, Rickshaw route restrictions, monetary penalties for individuals who violate traffic laws, and the construction of flyovers to reduce traffic congestion.

Moreover, proper enforcement of traffic laws is also required in this regard (Ahmed, 2023). Road accidents are prominent in developing countries, and Bangladesh has to bear a large share of the burden due to road traffic injuries. Traffic rules in Bangladesh include all the critical risk factors the World Health Organization recommends. However, amendments in the existing laws are required to combat the immediate challenges of increasing accidents and injuries every year, such as safety standards of helmets for both driver and pillion riders and use of seat belts for children, or not allowing children in the front seat until a certain age (Shafiq et al., 2020). Pedestrians' and drivers' understanding of traffic signals is also necessary for traffic management in Dhaka city. However, more initiatives can be taken, such as monthly public awareness seminars for drivers and pedestrians organized by driving schools, high schools, colleges, universities, government offices, and private offices (Ahmed et al., 2022).

Furthermore, some research has been conducted on traffic management systems and traffic problems in Dhaka city. However, after reviewing several studies on this topic, no research has been done on the challenges of traffic police, who play one of the most critical roles in managing traffic in Dhaka city. So far as we are aware, it is the only paper that focuses on the challenges of traffic police. This study intends to fill some of this gap by addressing two research objectives (a) To identify the challenges faced by the Traffic Police in traffic management of Dhaka city and (b)To recommend policy measures to address the challenges of Traffic police. This paper makes an essential contribution to Dhaka city's traffic management system because the findings of the study will assist policymakers in addressing the challenges of traffic police in controlling the traffic system and integrate effective solutions

in this regard, which will help to reduce the overall traffic congestion in the Dhaka metropolitan area. Therefore, it is significant to conduct this study.

2. Methods

2.1. Research Design, Data Collection, and Data Processing

Since qualitative research allows for a more in-depth understanding of the participant's experience, it was chosen as the research method for this study to understand the difficulties faced by traffic police in the Dhaka metropolitan area. Furthermore, qualitative methods generate a wide range of thoughts and opinions that people have regarding the issues and highlight inequalities in group perspectives (Berg & Lune, 2017). For this study, we conducted 50 semi-structured in-depth interviews. In the period between January and March of 2023, face-to-face interviews were conducted. The selection of traffic police officers with differing ranks, levels of experience, and areas of jurisdiction was accomplished through the use of a random sampling technique. Interviews with consented participants were conducted after individual appointments. Each interview lasted for 20 to 25 min. Probing questions were asked, and participants could express their views and comments. All interviews were audio-recorded and transcribed line by before being subjected to thematic analysis. In addition, researchers have observed the daily activities, interactions, and challenges of traffic police officers by spending time with them. Field notes have been collected to supplement and provide context for the interview data. The interviews and field observations were contrasted to validate and strengthen the study's conclusions.

Table 1 Profile of participants

Designation	Number
Assistant commissioner of police (ACP)	5
Deputy Commissioner of Police (DCP)	1
Sergeants	24
Traffic constable	20

Source: Field data, 2023

2.2. Features of The Study Area

This study was carried out in the capital city of Dhaka. Being the capital city of Dhaka, it is one of the busiest cities in Bangladesh. For this study, we purposively selected three zones, namely Shadarghat, Jatrabari, and Mirpur, to collect data because these areas are considered one of Dhaka's most crowded areas where the traffic police have to face many difficulties.

3. Results and Discussion

3.1. Result

Table 2 Demographic profile of the informants

Category	Variable	Number
Gender	Male	50
Age	20-30	15
	30-40	25
	40-50	10
Education	SSC	15
	HSC	10

Graduation	15
Post Graduation	10

Source: Field data, 2023

The demographic profile significantly determines a person's strength and work capacity. Table 1 indicates that the age range of the informants is between 20 and 40 years old and that all informants are male. Nearly all informants are literate, and their highest level of education is postgraduation.

3.1.1. Understanding of Traffic Signal Behavior

The purpose of traffic lights is to guide and regulate traffic flow at intersections. Drivers, riders, and pedestrians must observe and comprehend the various traffic lights (Traffic Signals Rules, 2020). During the interviews, informants were questioned about understanding the traffic signals behavior among the people. The study's findings indicate that though understanding traffic signal behavior among drivers and pedestrians is satisfactory, violation of traffic signals is pervasive.

One of our informants explained in this regard as follows- most drivers and pedestrians have a better understanding of traffic signals, but they do not try to follow them. I frequently see many vehicles plying on the wrong side of the road as if the wrong side is right for them. Sometimes, drivers only want to stop after seeing a red signal if we are present there. (Field data, 2023).

3.1.2. Training

Training plays a vital role in the working of police officers. It brings practical knowledge and helps in discharging duties professionally and successfully. For traffic police personnel, training in specific fields can help them realize their full potential. Every member of the traffic police force is required to have a certificate from the Traffic Training School (TTS) per service regulations but one of our respondents explained:

> When I (a traffic constable) first started my job in the traffic division, I did not understand how the traffic system worked because there was no opportunity for us to receive training. The sergeants get the opportunity of training since they were explicitly recruited for traffic management, but because we (traffic constables) come from a different department of the police, we must afford a different opportunity. (Field data, 2023)

The study's findings indicate that most informants are unsatisfied with the training. Training in conflict management emphasizes the significance of professionalism, courtesy, and impartiality. Officers can build trust, legitimacy, and confidence in handling difficult situations fairly and responsibly by demonstrating practical conflict resolution skills. Effective conflict management is essential for police officers to ensure public protection, preserve order, and foster positive community relations. During the interview, informants are asked if they have received training in conflict resolution or Psychological first aid (PFA) Training. However, the study revealed that the Bangladeshi traffic police need to familiarize themselves with this type of training.

3.1.3. Awareness of Traffic Rules

All types of government regulations require substantial public support. Companies can only achieve success if their personnel adhere to business policies. Numerous collisions are caused by disregarding traffic laws. The result of the study reveals that people, as well as drivers, need better knowledge and awareness about traffic rules.

One of the informants explained:

> We are sometimes unable to enforce road discipline because of a lack of awareness among drivers, passengers, and pedestrians. Often, several buses wait for an extended period to pick up passengers. In addition, pedestrians often walk on the main road rather than the walkway. Many people still need to learn about the new amount of fines or the punishment they need to pay according to the New Traffic Rules 2022. (Field data, 2023).

3.1.4. Manpower

Significant personnel at critical agencies, such as traffic police, are essential for road safety. Because of the increase in the number of vehicles, there should be a traffic police officer present at all of the city's significant roads around the clock. Informants explained:

> Manpower is insufficient to meet the extra workload during different kinds of national and religious festivals, which results in extra stress and pressure on us. If we leave a traffic signal intersection for a moment, it leads to gridlocks. We cannot just step away if we want. So, we need at least two or three reserve traffic personnel to move in an emergency. (Field data, 2023)

> The present study transpires that due to a lack of personnel, traffic cops cannot manage such a large assembly of individuals and prevent the movement of non-motorized vehicles, violation of traffic rules, overtaking, traffic disorder, and plying of unfit vehicles.

3.1.5. Coordination of Traffic Police with Other Organizations

Coordination is concerned with synchronizing, integrating, or unifying all the group actions to achieve its objectives. Maintaining traffic coordination among BRTA, RAJUK, and traffic police is vital. Because BRTA issues driving licenses, RAJUK is responsible for sustainable city management in Dhaka. Better coordination among the different organizations is essential in active traffic management. However, the study finds that there needs to be more coordination among Various bodies like Municipal Corporations, licensing authorities, and traffic police. The findings also disclosed that if the traffic police claim help from city corporations, such as establishing police boxes and toilets facilities. They usually do not get it. Various service providers with unclear and overlapping responsibilities result in poor traffic management in Dhaka. One of our respondents explained:

> Even though many vehicles lack fitness, BRTA still permits them to operate. Therefore, we are unable to stop them. Even though many cars do not have fitness, but still have permission from BRTA. As a result, we need a way to stop them. (Field data, 2023)

3.1.6. Health Issue

Air pollution in Bangladesh is a severe threat to public health, particularly to city dwellers and workers. The increasing number of vehicles is one factor leading to the deterioration of air quality. The duties of the traffic police require them to stand on the road for extended periods. Thus, during the interviews, informants were questioned if they had any health difficulties. Most informants complained of experiencing back discomfort, hearing loss, sunburn, and chronic cough, but they did not get any extra medical allowances. Our one informant provided the following explanation:

> A common problem of traffic cops is hearing loss because we spend much time in the middle of traffic noise. Many of us (traffic police) suffer from various physical problems, including kidney complications, since we drink less water to deal with the lack of toilets. (Field data, 2023)

3.1.7. Manual Traffic Signal

The Bangladeshi traffic control system has yet to be updated since the 1980s. The study found that traffic in Dhaka city was still administered with manual signals. Manual traffic signal control, where traffic flow is managed by a human operator instead of an automated system, can have several drawbacks that can contribute to inefficiency and congestion. Besides, they also need logistic support such as body-owned cameras, shoulder lights, watch tower, and CCTV cameras, which they need to get correctly. One of the informants explained:

> We have to give signals by hand, due to which many times the drivers from a distance need help to understand the signal properly. (Field data, 2023)

3.2. Discussion

The current study aimed to identify the challenges of traffic police in managing traffic in Dhaka city. The study's findings indicate that though understanding traffic signal behavior among drivers and pedestrians is satisfactory, the violation of traffic signals is pervasive. These findings support several prior studies. A study of similar nature finds that the percentage of drivers who understood traffic signs was 68.68%. Moreover, 64.5% of pedestrians had a solid understanding of traffic signs. The results indicated that drivers had a moderate understanding of the meaning of the traffic sign (Ahmed et al., 2022). Another report showed that age plays a crucial part in understanding traffic signals. Older drivers exhibited slower Traffic signal comprehension (TSC) speeds and tended to misinterpret more recent traffic signs than younger drivers (Schulz et al., 2020). However, our in-depth interview findings indicated that age and experience are only sometimes related to understanding the traffic signal.

Our study shows that most respondents are not satisfied with the training in traffic management, which is crucial for them. A similar study conducted in Srinagar city, India, also feels the need for specialized training for traffic personnel who are posted from the general police cadre and keep shifting from one branch of policing to another (Sofi & Sen, 2022). Another report shows that conflict management training is essential for police officers because The police can use negotiation to resolve interpersonal conflicts in a way that benefits both parties (Chijoko et al., 2020). A similar research in Tanzanian founds that a post-crash first aid (PFA) training program offered to traffic cops would improve their understanding and confidence in administering first aid (Ndile et al., 2020). However, from this study, we find that the traffic police of Bangladesh need such training.

The study reveals that most responders complained of experiencing back discomfort, hearing loss, sunburn, and chronic cough. Similar research revealed a high prevalence of respiratory illnesses across some traffic police personnel. It was discovered that police officers were susceptible to coughing, phlegm, blood, shortness of breath, wheezing, and chest pain (Ahmed et al., 2022.). Additionally, environmental scientists have discovered that prolonged exposure to noise and air pollution can cause anxiety and depression (L et al., 2017). Another study of exact nature discovers that due to the nature of their occupation, traffic police officers are continuously exposed to air pollution. Thus, they are always at the most significant risk for pollution-related illnesses compared to other professions (Shahrukh et al., 2022). The findings of this research highly support the findings of our study.

The study's findings show that traffic police need more logistic support and advanced equipment, which creates problems in managing traffic. A similar report discovered that though human signaling has difficulties and dangers, traffic in the city is still regulated manually. However, traffic in no other large city is manually governed. The government has spent Tk 119 crore to modernize the traffic signal system in Dhaka during the past 15 years. The ambitious proposal to modernize the capital's traffic control system included digitalizing

signal lights and installing countdown timers and digital display boards at major junctions (Alam & Habib, 2022).

The present study transpires that due to the lack of coordination of traffic police with other organizations, the variety of service providers with unclear and overlapping responsibilities results in poor traffic management in Dhaka. These findings support several prior studies conducted in Bangladesh. A similar study shows that the BRTA issues driving licenses in Chittagong; however, people with little driving experience obtain them because of corruption. As a result, the number of accidents is increasing; conversely, traffic congestion is expected due to traffic rule violence. The country's overall number of illicit or unlicensed drivers is estimated to be around 80000. Individuals who have worked as a helper under a driver for a few years are becoming drivers. Besides, Inadequate city growth planning is also putting additional strain on traffic cops (Shamsher & Abdullah, 2013).

4. Conclusion

It is evident from the preceding explanation that the current traffic congestion issues result from the combined effect of the unplanned road network, lack of public awareness, and uncontrolled land use, which are again interconnected. The traffic issue in Dhaka is necessary to pay attention to the traffic police. The main goal of this study is to identify the significant issues of traffic police in Dhaka city. Overall, the findings of the study have significant implications for policy maker to Dhaka city's traffic management system because the findings of the study will assist policymakers in addressing the challenges of traffic police in controlling the traffic system and integrate effective solutions in this regard, which will help to reduce the overall traffic congestion in the Dhaka metropolitan area. Additionally, the study recommends several policy measures to address the difficulties faced by traffic police, such as growth in the number of traffic police officers and the enhancement of their salaries and benefits that motivates them to perform their duties. Since they must spend most of their time on the road, the traffic police should also have a functional sanitary system. Since traffic police must work in a noisy and polluting environment, resources such as night coats and face masks should be given immediately. In addition to driving, pedestrians must be more mindful of traffic rules and assist traffic police in performing their duties effectively. Other training, concealing, is also necessary to assist them in managing workplace stress. The automation of traffic lights is essential for the better management of traffic in the city of Dhaka. An internet-based intelligent traffic control system can handle urban traffic more efficiently. Ultimately, the negative perception of traffic police must be changed.

Studying has some limitations. The study was done in a qualitative method. Therefore, evidence-based statistical findings were not possible. This study was conducted in Dhaka city, and the results of our study may not represent the challenges of traffic police in the whole country. However, further study can include large quantitative samples or a mixed-method approach.

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