Characteristics, Roles and Challenges of Traffic Personnel: Implications toward Efficient Traffic Management System
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Abstract
The purpose of this study was to determine the characteristics, roles and challenges of traffic personnel and their implications toward efficient traffic management system in Bacolod City during the second quarter of calendar year 2018. A mixed methods research design was used which involved the use of both quantitative and qualitative methods by means of survey responded by 150 traffic personnel, key informant interview participated by 3 Barangay Captains and a City Councilor, and focus group discussion participated by 6 traffic personnel which were all selected through a purposive and convenience sampling techniques. Frequency count, percentage, weighted mean, standard deviation, Mann-Whitney U, Kruskal Wallis and IBM SPSS Version 19 were employed to analyze and present the data for quantitative part. While the qualitative part of the study, Thematic Analysis was utilized. The findings showed that traffic personnel who participated in the study were almost equally divided when grouped according to age, while majority were male, attained college level, have less than 7 years of experience and designated as traffic enforcer. Meanwhile, not all completed the required trainings. When it comes to their roles as traffic personnel, it showed that they are mainly managing traffic flow and implementing traffic rules and regulations in the roads. Moreover, it showed that majority of them are highly knowledgeable on City Ordinance 338, and there are no significant differences when they were grouped according to age, sex, educational attainment, and job designation. However, significant differences were found in their level of knowledge on the aforementioned ordinance when they were grouped according to length of service and trainings attended. On the other hand, it was found out that the top most challenge experienced by the participants is the arrogance of drivers. The lack of discipline which includes disregarding of traffic rules and regulations among drivers follows next. Ignorance of the traffic rules and regulations among road users, attitude of drivers, bad weather conditions, high volume of vehicles and road widening projects are also included in the short list of challenges encountered by traffic personnel in the City. Finally, results of this study were used in formulating an enhanced traffic management system program for Bacolod Traffic Authority Office.

Keywords: Challenges and Roles, Efficient Traffic Personnel, Management System

Introduction
Modern societies rely on traffic management system to minimize traffic congestion and its negative effects. Traffic management is the planning, monitoring and control or influencing of traffic (Winder et al., 2009). Its main concern is the traffic enforcement (Omar, 2003); it is imperative to assess the technical know-how of the personnel responsible for transport planning and traffic management (Lidasan et al., 2009). In the Philippines, Senate Bill 994 or also called as National Traffic Enforcement and Management Act which was introduced and proposed by Senator Win Gatchalian stated that one of the elements of road policy is an efficient traffic enforcement which means that the importance of competent traffic corps, traffic enforcers or traffic personnel...
cannot be underestimated as they play a vital role in maintaining public order in the roads. While an ordinance organizing Bacolod Traffic Authority Office (BTAO) or City Ordinance 315 was created to supervise the whole traffic management system in Bacolod City which includes the traffic personnel manning the roads of the city; these are the “traffic aide” who enforces and implements the traffic laws and related ordinances and the “traffic enforcer” who assists in planning, organizing, coordinating and supervising traffic enforcement and operational functions. In this study, “traffic personnel” is used to cover both functions.

On the other hand, the roles of the City Officials and Bacolod Traffic Authority Office Head and Supervisors are imperative to the performance of traffic personnel in the roads as it requires to have leaders who can create plans and solve problems in order to make a difference in the public sphere; hence, this study is linked to the discipline of public management. According to Hughes (2012), public management refers to how administrative parts of government are organized and how they process information and produce outputs in policies, laws or goods and services. While according to Small (2015), it enables one to raise vital questions and identify problems pertaining to the services that are offered to the public in order to make it more effective. It is also a tool that may be used to improve the overall quality of public service and standard of living. Moreover, this study is linked to the discipline as the role of public managers is an important element to provide and develop new ideas for how services can be improved at the local level.

Bacolod City is regarded as a highly urbanized city and the capital of the province of Negros Occidental. It has the highest population rate in Western Visayas, and takes pride to be chosen as the Top Philippine Model City in 2017 by the Manila Times in the search for the most livable urban centers in the country. However, despite the economic boost and title, the city has not escaped from traffic congestion for a lot of reasons. Some of these are the high volume of motor vehicles, and fairly high commuting and motoring population; according to Land Transportation Office 2017 Annual Report, Bacolod City is home to 92,827 registered motor vehicles. With this, the city implemented national and local land transportation laws to cope with the worsening traffic condition.

RA 4136 or known as the “Land Transportation and Traffic Code” is the major land traffic law of the Philippines that serves as a guide and basis to all the traffic personnel in the Philippines in maintaining and promoting order and smooth flow of traffic in the roads. In Bacolod Traffic Authority Office (BTAO), aside from hand signaling and other related trainings, it is a must for its traffic personnel to be equipped with knowledge on Republic Act 4136 before they will be dispatched to man the city roads as all the basic and important road policies are stated on it which the riding and commuting public should follow. For instance, Section 46, Art. IV of Republic Act 4136 which states that no driver shall park a vehicle, or permit it to stand, whether attended or unattended, upon a highway in any of the following places: within an intersection, on a crosswalk, at any place where official signs have been installed prohibiting parking, and the like, is one of the sections that traffic personnel of Bacolod City should implement in order to discipline and educate drivers who park their vehicles in a “No Parking” area which usually obstruct other road users which lead to traffic congestion.

On the other hand, the city has also created and implemented City Ordinance 338 or the Comprehensive Traffic Management and Regulation Ordinance of Bacolod City. This is an ordinance regulating traffic, parking, towing, and other transporting or commuting activities in the city streets of Bacolod, establishing the route system of public utility vehicles (PUV’s) and trucks, and redefining the loading and unloading zones in the city of Bacolod. This fundamental local traffic law also serves as a guide to the traffic personnel, to what should be done on the roads of the city. For instance, under Section V of City Ordinance 338, provides the list of intersections that are declared as no left turn. While Section VI of the same ordinance provides the list of areas that are designated as loading and unloading zones for public utility vehicles. The aforementioned local law helps traffic personnel manning the city roads determine what areas in Bacolod City shouldn’t be for left-turns, loading, unloading and the like.

However, despite having Republic Act 4136, City Ordinance 338 and other related traffic laws that serve as tools for the traffic personnel of Bacolod City, the city still experiences traffic congestion. Hence, this study was conducted to determine the characteristics, roles and the challenges of traffic personnel and their implications toward efficient traffic management system in Bacolod City.
Objectives of the Study
This study aimed to determine the characteristics, roles and challenges of traffic personnel and their implications toward efficient traffic management system in Bacolod City.

Methodology
This section discusses the methods that were used for data gathering. This presents the research design, participants, instrumentation, data gathering procedure, statistical and data treatment and ethical considerations.

Research Design
The primary purpose of the study was to explore the characteristics, roles and challenges of traffic personnel; hence, a mixed methods research design was used. This involves the use of both quantitative and qualitative methods in a single study which provides a more complete understanding of the research problems. It was used to gain a better understanding of connections or contradictions between qualitative and quantitative data; they have provided opportunities for participants to have a strong voice and share their experiences across the research process, and they facilitated different avenues of exploration that enrich the evidence and enable questions to be answered more deeply (Allison Shorten & Joanna Smith, 2016). In addition, mixed methods ideally includes the benefits of both methods (Johnson, Onwuegbuzie, & Turner, 2007): Quantitative analyses employ descriptive and inferential statistics, whereas qualitative analyses produce expressive data that provide descriptive details which is often in narrative form to examine the study’s research objectives (Creswell, 2013).

Meanwhile, a quantitative descriptive and a qualitative descriptive design was conducted at the same time as it only involves describing the behavior of a subject without influencing it in any way (Shuttleworth, 2019). There was equal emphasis placed on these two strands. Numeric data from survey questionnaires and text data from the focus group and key informant interviews were analyzed independently. After independent analysis was completed, the findings were merged, cross tabulated and interpreted to assess relationships meaningfully (Maninno, 2014). This design helped determine if the age, sex, educational attainment, length of service, job designation of and trainings attended by the participants (traffic personnel) were associated to their knowledge on their roles in accordance to City Ordinance 338. Moreover, this also helped describe the challenges that the participants encountered in their work.

Respondents of the Study
The target population of this study was the traffic personnel (traffic aides and traffic enforcers) of Bacolod City. There are currently 320 traffic personnel designated as traffic aide and traffic enforcer under the management of Bacolod Traffic Authority Office (BTAO) and were the target participants to answer the survey questionnaire of the study. However, only 150 participants were able to answer the survey questionnaires as others refused to answer, while the rest were not available when the surveys were conducted. On the other hand, 4 key informants consisted of 3 Barangay Captains and 1 City Councilor, the Chairman of Transport Committee, were purposively selected to participate in a one-on-one interview to answer questions regarding traffic personnel’s characteristics, roles and challenges. On top of that, hiring processeses and trainings for the traffic personnel were also discussed during the interview in order to assess their relation or influence to the efficiency of the traffic personnel in the city roads as well as to the traffic management system as a whole. While, 6 traffic personnel consisted of 3 traffic aides and 3 traffic enforcers were chosen using convenience sampling to participate in the focus group discussion. Convenience sampling entails selecting participants on the basis of their availability (Mathieson, 2014).

Data Gathering Instrument
A self-designed questionnaire was utilized to gather data from the participants, to determine their level of knowledge on their roles according to C.O. 338 and the challenges they often encounter in their work. The
The instrument was composed of 3 parts: Part I includes the profile of the participants in terms of age, sex, educational attainment, length of service, type of job designation and trainings attended. Part II consists of 16 items which has measured the level of knowledge on the roles of traffic personnel in relation to C.O. 338. Part III consists of one open-ended question about the challenges encountered by the traffic personnel on the roads. While, another set of self-made question guides were also utilized for the key informant interviews and focus group discussion which consisted of 5 and 7 questions respectively.

The instruments had undergone an appropriate validity and reliability testing. Content validity was used in determining the validity of the instrument. This type of validity testing refers to a measure of the degree in which the items in the test are represented of the characteristic being measured. The questionnaires were presented to the jurors, who were the members of the panel, served as validators of the instrument using the criteria developed for evaluating survey questionnaires set forth by Carter V. Good and Douglas B. Scates. Validation for questionnaires rated 3.93 which interpreted ‘Very Good’.

**Data Gathering Procedure**

Data gathering took place between September 4, 2018 and Oct 5, 2018. Survey was set to be conducted first. So before survey questionnaires were distributed, permission was sought by sending a letter to the Chief of Bacolod Traffic Authority Office requesting to conduct a survey and interview with the traffic personnel. After permission was granted, the researcher went to the respective areas of assignment of traffic personnel during their break time at work. The researcher introduced herself and lectured on the purpose of the study. Survey questionnaires were then distributed to the traffic personnel who were present in the area, and others who refused to participate were not forced to do it. The survey was personally administered by the researcher and when participants raised some questions, they were answered and instructed politely. Survey questionnaires were collected as soon as participants finished answering. They were thanked for participating and were assured that the personal information they have provided will remain confidential. After conducting the surveys, the researcher forwarded the gathered data to the statistician to be analyzed and evaluated. After completing the survey, key informant interviews were set to be done next. The researcher went to the respective offices of the key informants and sought permission to conduct a one-on-one interview through verbal communication. As soon as permission was granted to conduct the interview, rapport was established and the purpose of the study and the interview was explained to gain full cooperation of the study participants. In addition, permission was also sought to use audio recorder to capture verbatim answers. The interviews were conducted using the interview guide consisted of 5 questions which were answered clearly and directly by the participants. Each interview lasted from 5 to 15 minutes which has yielded valid answers and significant statements from the interviewees. After finishing the interviews, the participants were thanked and were assured that the information they have provided will remain confidential. The last data gathering procedure that was conducted was the focus group discussion. On the first Saturday of October 2018 during the general assembly of traffic personnel, the researcher went to the Bacolod Traffic Authority Office grounds to conduct focus group discussion. As soon as their assembly ended, some of the traffic personnel were approached and requested to participate in the focus group discussion. 6 traffic personnel consisted of 3 traffic aides and 3 traffic enforcers who were chosen using the convenience sampling have willingly considered the request. They were then brought to an area where table and chairs were set up. Rapport was immediately established and the purpose of the study and interview was explained as soon as everyone has settled in their seats. In addition, the participants were told that they can answer in vernacular or Hiligaynon and they were also informed that audio recorder will be used to capture verbatim answers. Interview guide consisted of 7 questions was used in the focus group discussion which were answered by the participants one by one in any order. The focus group discussion lasted 42 minutes which yielded valid answers and significant statements from the participants. After finishing the focus group discussion, the participants were thanked for sharing their time and experiences, and were also assured that the information they have provided will remain confidential. As soon as key informant interviews and focus discussion were completed, the recorded interviews have been listened to and verbatim transcriptions were done. Then a matrix was designed to initiate data analysis using the Thematic Analysis where significant
statements were extracted from the verbatim proceedings of each participant and eventually formulation and identification of sub-themes that emerged and various themes that comprised the qualitative data identified and formulated. Lastly, results of the study were made into a written research report presented to panel of evaluators.

**Ethical Consideration**

The principles of Ethics guided the conduct of this study. Formal communication was delivered to all study participants and permission was sought for their voluntary participation in the study. An informed consent form was also signed by the participants in key informant interviews and focus group discussion where the researcher assured them that the data gathered from research will be used for research purposes only. After the data were collected, the documents were destroyed and disposed of securely.

**Analytical Schemes**

In statement of the problem 1, frequency count and percentage were employed to answer and present the demographic characteristics of the participants, while answer to statement of the problem 3 were derived with the use of weighted mean and standard deviation. To answer statement of the problem 4, Mann-Whitney U and Kruskal Wallis were employed. In addition, data analysis was conducted using IBM SPSS Version 19. A p-value of .05 or less was considered statistically significant.

In statement of the problem 2 and 5, focus group discussion and key informant interviews were employed to extrapolate the roles of the traffic personnel in relation to City Ordinance 338 as well as the challenges often encounter by traffic personnel in their work. Audio recordings were transcribed verbatim and each transcript were independently analysed line by line. Identified codes were categorized into broader themes and subthemes. Analysing qualitative data was very challenging (Hirsjärvi & Hurme, 2008) as the data reveals multiple interesting aspects that the researcher has not even considered beforehand (Tuomi & Sarajärvi, 2009). The ultimate aim of the analysis is to access the thoughts and feelings of research participants, which can enable development of an understanding of the meaning that people ascribe to their experiences (Sutton and Austin, 2015).

The qualitative part of the study utilized the thematic analysis as it helps highlights what has been said about each individual theme (Tuomi & Sarajärvi, 2009). According to Braun and Clarke (2013), thematic analysis is a flexible data analysis plan that qualitative researchers use to generate themes from interview data. This approach is flexible in that there is no specific research design associated with thematic analysis; it can be utilized for case studies, phenomenology, generic qualitative, and narrative inquiry to name a few. This data analysis plan is perfect for both novice and expert qualitative researchers because the steps are easy to follow but rigorous enough to generate meaningful findings from the data. According to Braun and Clarke (2013), there are six phases of Thematic Analysis.

**Familiarising the data**

Each interaction was transcribed, and then transcripts were read and re-read. Initial ideas were noted down to understand and familiarize all aspects of data.

**Generating initial codes**

Preliminary codes were identified after coded interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each other.

**Searching for themes**

The third step in the process was the start of the interpretive analysis of the collated codes. Relevant data extracts were sorted (combined or split) according to overarching themes.

**Reviewing themes**
Checked in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generated a thematic ‘map’ of the analysis.

Defining and naming themes

This step involved ‘refining and defining’ the themes and potential subthemes within the data. Ongoing analysis was required to further enhance the identified themes and to tell the overall story which helped generate a clear definition and name for each theme.

Producing the report

The final process was the selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing scholarly report of the analysis.

Figure 2. Schematic Diagram of Thematic Analysis for Qualitative Data of the Study

Results and Discussions

This section presents the analysis, interpretation and discussion of the results. The presentation is done according to the statement of the problem. In addition, qualitative data and findings from key informant interviews and focus group discussion were also presented with analysis and interpretation utilizing the thematic analysis and schematic diagrams in the last part of this section Characteristics of the traffic personnel in terms of age, sex, educational attainment, length of services, type of job designation and trainings attended

Table 1 presents the demographic characteristics of the participants of the study when they were classified according to age, sex, educational attainment, length of service, job designation and trainings attended.

The results shows that the participants were almost equally divided when grouped according to age wherein 55% were in the older group (42 years old and above) and 45% of them were in the younger group (below 42 years old). In addition, the participants were mostly (96%) male, while for their educational attainment, 44% of them attained college level, 14.7% graduated high school, 3% finished elementary, and only 0.7% of them obtained post graduate studies.
When it comes to length of service, majority (67%) have less than 7 years of experience. While for the job designation, majority (85%) of the participants were traffic enforcer and only 15% were traffic aide. Lastly, for the trainings attended, 61% of the participants completed the trainings required, while 39% of them have not.
According to Schweitzer (2017), when it comes to age requirements, most law enforcement agencies have only one rule: you must be over the age of 21. While, Suttle (2016) cited that aging was most likely to affect job performance if job tasks required sensory perception, selective attention, working memory, information processing, rapid reaction or physical strength. However, according to JRank Studies, the possible reason why there was no observed relation between job performance and age was that job performance was usually multidimensional (as cited in Dacalanio, 2017). While under the City Ordinance No.315 which is an ordinance organizing the Bacolod Traffic Authority Office (BTAO), minimum age requirement for traffic personnel applicants was not stipulated. Hence, the result of this study that shows traffic personnel were equally divided into two groups (older and younger groups) indicates that age is not an essential requirement to hire or designate individuals for traffic personnel’s job.

While the result of the study which shows that majority of the participants were male is supported by Kokemuller (2017) that police and traffic law enforcement careers have historically been male-dominated. According to the U.S. Bureau of Labor Statistics, only 12.6 percent of law enforcement officers in 2012 were women. Additionally, many law enforcement agencies have a relatively small percentage of female applicants and few, if any, female employees.

On the other hand, one of the results of the study showed that most participants attained college level. Though City Ordinance 315 stated that high school graduate is the qualification standard for traffic personnel, college level applicants are still qualified for the traffic personnel job. Similar to the study conducted by Dacalanio (2017) wherein its result showed that most of its study participants (traffic enforcers) also attained college level. This signifies that individuals who attained high school diploma and reached college level are still qualified to apply and do traffic personnel’s job. According to Stilwell, Ernst and Young (2018), academic qualifications will still be taken into account and indeed remain an important consideration when assessing candidates as a whole, but will no longer act as a barrier to getting a foot in the door.

While, for the length of service, the result of the study showed that most of the participants have less than 7 years of experience. According to Smith (2014), career longevity is a blind assumption of the competencies of employees. He added that it is the quality of works that matter (cited in Dacalanio, 2017).

Further, the result showed that not all participants have completed the required trainings. According to Frost (2019), an employee who receives the necessary training is better able to perform her job. He becomes more aware of safety practices and proper procedures for basic tasks. The training may also build the employee's confidence because he has a stronger understanding of the industry and the responsibilities of his job. This confidence may push him to perform even better and think of new ideas that help him excel. In addition, Estrada (2016) said that high levels of enforcement of traffic rules must be ensured in the deployment of trained and empowered enforcers in thoroughfares. Hence, these traffic personnel need to be fully trained specifically for the job of traffic management and the enforcement of traffic laws.
Table 1: Demographic Characteristics of the Participants of the Study (n=150)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Older(≥42 years old)</td>
<td>82</td>
<td>54.7%</td>
</tr>
<tr>
<td></td>
<td>Younger(&lt;42 years old)</td>
<td>68</td>
<td>45.3%</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>144</td>
<td>96.0%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>6</td>
<td>4.0%</td>
</tr>
<tr>
<td>Educational</td>
<td>Elementary Graduate</td>
<td>5</td>
<td>3.3%</td>
</tr>
<tr>
<td>Attainment</td>
<td>High School Level</td>
<td>27</td>
<td>18.0%</td>
</tr>
<tr>
<td></td>
<td>High School Graduate</td>
<td>22</td>
<td>14.7%</td>
</tr>
<tr>
<td></td>
<td>College Level</td>
<td>66</td>
<td>44.0%</td>
</tr>
<tr>
<td></td>
<td>College Graduate</td>
<td>29</td>
<td>19.3%</td>
</tr>
<tr>
<td></td>
<td>Post Graduate</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Length of Service</td>
<td>Long(≥ 7 years)</td>
<td>49</td>
<td>32.7%</td>
</tr>
<tr>
<td></td>
<td>Short(&lt; 7 years)</td>
<td>101</td>
<td>67.3%</td>
</tr>
<tr>
<td>Job Designation</td>
<td>Traffic Enforcer</td>
<td>127</td>
<td>84.7%</td>
</tr>
<tr>
<td></td>
<td>Traffic Aide</td>
<td>23</td>
<td>15.3%</td>
</tr>
<tr>
<td>Trainings Attended</td>
<td>Complete(=6 Trainings)</td>
<td>92</td>
<td>61.3%</td>
</tr>
<tr>
<td></td>
<td>Incomplete (&lt;6 Trainings)</td>
<td>58</td>
<td>38.7%</td>
</tr>
</tbody>
</table>

On the roles of the traffic personnel in the traffic management system

Under the general supervision set by the Bacolod Traffic Authority Council in City Ordinance 315, traffic aide or traffic enforcer enforces, implements the traffic laws and performs other related tasks as may be necessary to ensure a smooth flow of traffic. While, according to Goldenbeld (2016), traffic teams or traffic enforcers spend nearly all their time on the enforcement of important traffic rules. In addition, under Senate Bill 994, traffic enforcers cannot be underestimated as they play a vital role in maintaining order in the roads (Gatchalian W., 2016). Traffic enforcers are also the ones who inform and guide road users specifically the vehicles and pedestrians as to where the loading areas are as well as apprehend those who violate traffic laws (Bagolong et al., 2014).

Level of knowledge on the roles of traffic personnel in relation to City Ordinance 338

Table 2 presents the level of knowledge of the participants on Section I, II and III of City Ordinance 338. It shows that the participants are highly knowledgeable on the first 3 sections of City Ordinance 338.

Table 2: Level of Knowledge on City Ordinance 338 of the Participants of the Study

<table>
<thead>
<tr>
<th>4 HK</th>
<th>3 MK</th>
<th>2 SK</th>
<th>1 NK</th>
<th>Mean</th>
<th>Interp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>41</td>
<td>17</td>
<td>0</td>
<td>3.50</td>
<td>Highly Knowledgeable</td>
</tr>
<tr>
<td>97</td>
<td>36</td>
<td>16</td>
<td>1</td>
<td>3.53</td>
<td>Highly Knowledgeable</td>
</tr>
</tbody>
</table>

1. I am knowledgeable that City Ordinance 338 is called as the Comprehensive Traffic Management and Regulation Ordinance of Bacolod City.

2. I am knowledgeable that C.O. 338 is also an ordinance that establishes the route system of public utility vehicle (PUV’s) and trucks, and redefining the loading and unloading zones in the city of Bacolod.
3. I am knowledgeable that City Ordinance 338 is an ordinance regulating traffic, parking, towing and other transporting or commuting activities in the city streets of Bacolod.

4. I am knowledgeable that Section 2 of City Ordinance 338 states that it is the policy of the City of Bacolod to provide the orderly and safe flow of vehicles and pedestrians for the public welfare.

5. I am knowledgeable that the downtown area shall be bounded by the streets of Lacson, Rizal, San Sebastian and San Juan.

6. I am knowledgeable that illegally parked vehicles are those which are parked (attended or unattended) in areas prohibited by law.

7. I am knowledgeable that “Jaywalking” means crossing the street, thoroughfare or highway outside the marked crosswalk or pedestrian crossing, or underneath a pedestrian overpass.

8. I am knowledgeable that Parking or Parked shall mean that a motor has been brought to a stop on the proper edge of highway, and remains inactive in that place for an appreciable period of time.

9. I am knowledgeable that a motor vehicle which properly stops merely to discharge a passenger not be considered as “parked”, if the motor vehicle again moves away without delay.

10. I am knowledgeable that City Ordinance 338 states that “Traffic” refers to the flow and motions, transit and stops, terminal and waiting stations of motored or un-motored vehicles and pedestrians.

Legend: 3.25 - 4.00 Highly Knowledgeable (HK)
2.49 - 3.24 Moderately Knowledgeable (MK)
1.73 - 2.48 Slightly Knowledgeable (SK)
1.00 - 1.72 Not Knowledgeable (NK)

**Table 3 presents the level of knowledge of the participants on Section V of City Ordinance 338.**

The participants are moderately knowledgeable that Gatuslao – Burgos Street --- is no left turn in all directions except from Burgos to Gatuslao Street southward and that that Lacson – 23rd Street (Dr. Pablo O. Torre Street) --- no left turn in all directions except from Lacson to 23rd Street eastward whose mean scores are 3.23 and 3.08, respectively.

The participants are highly knowledgeable that from Burgos to Lopez Jaena Streets is no left turn in all directions as evidenced by the mean score of 3.25.

**Table 3 : Level of Knowledge on City Ordinance 338 (Section V) of the Participants of the Study**

<table>
<thead>
<tr>
<th>Item</th>
<th>4 HK</th>
<th>3 MK</th>
<th>2 SK</th>
<th>1 NK</th>
<th>Mean</th>
<th>Interp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section V: The following intersections are declared as no left turn:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I am knowledgeable that Gatuslao – Burgos Street --- is no left turn in all directions except from Burgos to Gatuslao Street southward.</td>
<td>89</td>
<td>19</td>
<td>29</td>
<td>13</td>
<td>3.23</td>
<td>Moderately Knowledgeable</td>
</tr>
<tr>
<td>2. I am knowledgeable that Lacson – 23rd Street (Dr. Pablo O. Torre Street) --- no left turn in all directions except from Lacson to 23rd Street eastward.</td>
<td>79</td>
<td>25</td>
<td>23</td>
<td>22</td>
<td>3.08</td>
<td>Moderately Knowledgeable</td>
</tr>
</tbody>
</table>
3. I am knowledgeable that Burgos – Lopez Jaena Streets -- is no left turn in all directions.

<table>
<thead>
<tr>
<th></th>
<th>93</th>
<th>19</th>
<th>20</th>
<th>18</th>
<th>3.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legend:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Highly Knowledgeable</td>
</tr>
<tr>
<td>3.25 - 4.00</td>
<td>HK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.49 - 3.24</td>
<td>MK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.73 - 2.48</td>
<td>SK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00 - 1.72</td>
<td>NK</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 4 presents the level of knowledge of the participants on Section VII of City Ordinance 338. The participants are highly knowledgeable on Items No.2 and No. 3, whose mean scores are 3.36 and 3.37 which can be interpreted as Highly Knowledgeable. This shows that the participants are highly knowledgeable that along Araneta Street, from San Sebastian Street to the Bacolod public plaza is one way and also along Libertad Street from Lopez Jaena Street to Mabini Street westward.

The participants are moderately knowledgeable that Gatuslao Street - Luzuriaga - Hernaez(Libertad) Streets is open to “two way” traffic as shown by the mean score of 3.05.

Table 4: Level of Knowledge on City Ordinance 338 (Section VII & VIII) of the Participants of the Study

<table>
<thead>
<tr>
<th>Item</th>
<th>4 HK</th>
<th>3 MK</th>
<th>2 SK</th>
<th>1 NK</th>
<th>Mean</th>
<th>Interp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am knowledgeable that Gatuslao Street - Luzuriaga - Hernaez(Libertad) Streets shall be open to “two way” traffic.</td>
<td>77</td>
<td>24</td>
<td>28</td>
<td>21</td>
<td>3.05</td>
<td>Moderately Knowledgeable</td>
</tr>
<tr>
<td>2. I am knowledgeable that along Araneta Street, from San Sebastian Street to the Bacolod public plaza northward is one way.</td>
<td>95</td>
<td>26</td>
<td>17</td>
<td>12</td>
<td>3.36</td>
<td>Highly Knowledgeable</td>
</tr>
<tr>
<td>3. I am knowledgeable that along Libertad Street, (Hernaez St.) from Lopez Jaena Street to Mabini Street westward (Libertad Public Market) is one way.</td>
<td>94</td>
<td>32</td>
<td>10</td>
<td>14</td>
<td>3.37</td>
<td>Highly Knowledgeable</td>
</tr>
</tbody>
</table>

Legend: 3.25 - 4.00 Highly Knowledgeable (HK)
2.49 - 3.24 Moderately Knowledgeable (MK)
1.73 - 2.48 Slightly Knowledgeable(SK)
1.00 - 1.72 Not Knowledgeable (NK)

Difference in the level of knowledge on City Ordinance 338 of the participants when they are grouped according to age, sex, educational attainment, length of service, job designation and trainings attended

Table 5 shows that no significant differences were found in the level of knowledge on City Ordinance 338 of the participants of the study when they were grouped according to age, sex, educational attainment, and job designation whose p-values are greater than .05 level of significant. This shows that the level of knowledge on City Ordinance 338 of the participants cannot be characterized by age, sex, educational attainment, and job designation.

On the other hand, the findings shows that there is significant difference in the level of knowledge on City Ordinance 338 of the participants when they were grouped according to length of service and trainings attended whose p-values are .041 and .000, respectively and less than .05 alpha.

When grouped according to length of service, the participants whose number of years is equal to or greater than 7 years (3.52) have higher level of knowledge on City Ordinance 338 than the other group which have less than 7 years of service(3.36). The difference between these two groups is found to be statistically significant.
Table 5: Difference in the Level of Knowledge on City Ordinance 338 of the Participants when they are grouped according to selected variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Mean</th>
<th>Test</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Older (≥42 years old)</td>
<td>3.44</td>
<td>Mann-Witney U</td>
<td>.297</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td>Younger (&lt;42 years old)</td>
<td>3.39</td>
<td>Test</td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>3.11</td>
<td>Mann-Witney U</td>
<td>.474</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.49</td>
<td>Test</td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td>Educational Attainment</td>
<td>Elementary Graduate High School Level</td>
<td>3.32</td>
<td>Kruskal Wallis Test</td>
<td>.157</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td>High School Level</td>
<td>3.39</td>
<td></td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td></td>
<td>Graduate College Level</td>
<td>3.64</td>
<td></td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.06</td>
<td>Mann-Witney U</td>
<td>.041*</td>
<td>Reject</td>
</tr>
<tr>
<td>Length of Service</td>
<td>College Graduate Post</td>
<td>3.52</td>
<td>Test</td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td></td>
<td>Graduate Long (≥7 years)</td>
<td>3.36</td>
<td>Mann-Witney U</td>
<td>.325</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td>Short (&lt;7 years)</td>
<td>3.45</td>
<td>Test</td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td>Job Designation</td>
<td>Traffic Enforcer</td>
<td>3.23</td>
<td>Mann-Witney U</td>
<td>.000*</td>
<td>Reject</td>
</tr>
<tr>
<td></td>
<td>Traffic Aide</td>
<td>3.65</td>
<td>Test</td>
<td></td>
<td>Ho</td>
</tr>
<tr>
<td>Trainings Attended</td>
<td>Complete (≥6 Trainings)</td>
<td>3.03</td>
<td>Mann-Witney U</td>
<td>.325</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td>Incomplete (&lt;6 Trainings)</td>
<td>3.06</td>
<td>Test</td>
<td></td>
<td>Ho</td>
</tr>
</tbody>
</table>
The challenges encountered by the participants on their job are summarized on Table 6. The top most challenge encountered and answered by the survey participants is the arrogance of the drivers. Almost half of the survey participants (58.9%) have experienced this problem. This was supported by participants from the focus group discussion.

Secondly, the lack of discipline which includes disregarding traffic rules and regulations and obstructing roadways (13.4%) among drivers follows next. This was supported by the participants from focus group discussion. Ignorance of the traffic rules among drivers and pedestrians (10.7%) is the third challenge often encountered by the survey participants. This was validated by participants from focus group discussion. One participant stated “Kulang sg edukasyon gid sg mga driver sa nahungod sa traffic.” (“Lack of education among drivers about traffic rules and regulations.”) Another focus group discussion participant supported stating “The pedestrian who violates the anti-jaywalking ordinance.” “Drivers who do not understand the policy or the traffic policy and regulation in the city of Bacolod.”

According to Gana et al. (2014), it is a great challenge to make road users comply with traffic laws and regulations. Road users who ignore traffic signage do not have basic knowledge of road signage communication. While according to NSA (2018), traffic violation play a significant role in obstructing traffic flow. It showed that 96% or 90% of the drivers disregard traffic signs and traffic lights and 95% failed to give signals and 94% had illegal overtaking. It also showed that traffic enforcement has high apprehension to traffic violations (Bagolong et al., 2014). Furthermore, lack of discipline and ignorance of traffic law and rules among motorists and vehicle owners are partly to be blamed of the existing traffic congestion (SunStar, Eli Gatanela, 2018).

Attitude of the drivers, weather conditions, high volume of vehicles, and road widening projects are also included in the short list of challenges encountered by the traffic personnel in the roads of Bacolod City.

Table 6: Frequency Distribution on the Job-Related Challenges encountered by the Participants (n = 112)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Challenges</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arrogant drivers</td>
<td>6</td>
<td>58.9%</td>
</tr>
<tr>
<td>2</td>
<td>Lack of discipline among drivers such as disregarding traffic rules and obstructing roadways</td>
<td>1</td>
<td>13.4%</td>
</tr>
<tr>
<td>3</td>
<td>Ignorance of traffic rules among drivers and pedestrians</td>
<td>1</td>
<td>10.7%</td>
</tr>
<tr>
<td>4</td>
<td>Attitude of drivers such as yelling, etc</td>
<td>8</td>
<td>7.1%</td>
</tr>
<tr>
<td>5</td>
<td>Weather conditions</td>
<td>7</td>
<td>6.3%</td>
</tr>
<tr>
<td>6.5</td>
<td>High volume of vehicles</td>
<td>2</td>
<td>1.8%</td>
</tr>
<tr>
<td>6.5</td>
<td>Road widening projects</td>
<td>2</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
On Screening Applicants for Traffic Personnel

The theme that emerged from the responses of the key informants on screening applicants for traffic personnel is “Background Investigation and Profile Evaluation.” which is supported by the literature New York Government (2018) that one of the important parts of the hiring process is the background investigation and profile evaluation. One key informant stated, “We give emphasis for their local clearances ..we conduct background investigation regarding their character as a person..generally, they should not be affected or involved with any drug related activities... they should have a good moral character.” Another key informant stated, “Before we get the traffic enforcer, we consider na dapat high school graduate.” (Before we hire applicant for traffic enforcer, we consider that he should be a high school graduate.”) One of the key informants also stated that “We are recommending that the traffic enforcers should be at least high school graduate, physically fit, physically able to withstand the rigors of their job.”

According to Alison Doyle (2018), background investigation is the process of reviewing a person’s commercial, criminal and financial records. Employers conduct background investigations for job applicants because of a lot of reasons. First, the employer may want to make sure they are telling the truth as it’s estimated that up over 40% of resumes can contain false information. Second, to make sure what the applicants had written in their educational attainment, whether they graduated from high school or college, is true; or to confirm that the applicants had worked at a previous employer during the time stated on the resume.

While according to Andrew Greenberg, background investigations and profile evaluation should always be a required part of the recruitment process. He stated that background investigations can be a valuable tool to select the right candidate as this will help prevent future problems (Greenberg A., 2013).

On the minimum qualifications of applicants for traffic personnel

“Possessing Qualification Standards” is the theme that emerged from the responses of the key informants which is supported by the literature (Sec. 4b, Bacolod City Ordinance 315, 2002) that Personnel of the Bacolod Traffic Authority Office (BTAO) shall be subjected to Civil Service Commission Rules and Regulations and shall conform to the qualification standards set for and as defined by the Human Resource Development Office. One of the qualification standards of a traffic aide or traffic enforcer is that educational attainment should be High School Graduate.

One key informant stated, “Aside from high school graduate, dapat kabalo sang mga signages..” “dapat may ara xa driver’s license.” (Aside from high school graduate, applicant should know about traffic signages and should have a driver’s license.).

Another key informant answered, “First and foremost, at least high school graduate.. they have to understand what is the traffic sign, what is the ruling. It is a must requirement that they must at least high school graduate.” One of the key informants also stated, “Traffic enforcers should be at least high school graduate, physically fit” “must be residence of the City of Bacolod.”

New York City Government (2018) provided the qualifications that traffic enforcer applicants should meet: they should have a high school diploma or at least high school graduate or GED, pass a character and background investigation; pass a drug screening; a city resident or be a city resident within 90 days of appointment if newly hired; and possess a driver license. While according to the Office of Personnel Management of the United States, qualification standards are description of the minimum requirements necessary to perform work of a particular occupation successfully and safely. These minimum requirements may include specific job-related work experience, education, medical or physical standards, training, security, and/or licensure. They are not designed to rank candidates, identify the best qualified for a particular position, or substitute for an analysis of an applicant's knowledge, skills, and abilities/competencies (OPM US GOV, 2018).

Alison Doyle provided the purpose and importance of job requirements or qualification standards. First, to improve the accuracy of the recruitment process, resulting to the company being able to hire the right person for
the job, or the candidate with qualifications that match the requirements of the job; Second, to reduce the number of potential; By making the jobs requirements as specific as possible, employers are able to reduce the pool of applicants further, resulting in a shortlist of candidates that possess the necessary qualities and qualifications for the job; Third, to assist applicants in making decisions on whether to apply for the job or not. On the other hand, job requirements have its components. These are skill and knowledge requirements, these might include working with a specific population or in a specific industry or employment sector; Years of work, may refer to a number of years of experience either in a general way or in a specific role; Educational requirements, Some positions will require applicants to have a certain level of education. For example, the job may require a high school diploma, a college degree, or a graduate degree. The employer will list the educational requirements for the job in the job posting. In some cases, related work experience, known as equivalent experience, may be substituted for some or all of the educational requirements (Doyle A., 2018).

On the importance of qualifications in selecting traffic personnel

The theme that emerged from the responses of the key informants on the importance of qualifications in selecting traffic personnel is “Establishing Qualifications” which is supported by the literature (Mott Community College, 2018) that establishing minimum qualifications provides clear and appropriate eligibility standards for a specific position wherein it should not be so restrictive that they exclude candidates who might reasonably have the ability to do the job.

One key informant’s answer on the importance of qualifications in selecting traffic personnel: “It is very vital considering that their qualification that should serve as their recommendation....” “Because normally, we could not deliver good output, if you could not screen and pre-qualified traffic enforcer.” “The qualification itself could speak on how well the person is prepared, to adapt and to handle the responsibility as traffic enforcers.” This was supported by another key informant who stated, “That is important because they will be the front-liner in the implementation of traffic ordinances.”

“Minimum” means --- the cut-off point; the lowest level of acceptable education and/or experience needed to successfully perform the job duties which mean that minimum requirements are used to establish clear and appropriate eligibility standards for a specific position wherein it should not be so restrictive that they exclude candidates who might reasonably have the ability to do the job; should not present artificial barriers to employment; need to be practical in the sense that they are obtainable in the general labor market; should address knowledge, skills and abilities and the “soft” skills (i.e., characteristics, values and work ethics) required at the time of hire. KSAs that can be obtained on the job should not be factored into the requirements; need to be tied directly to the job duties(Mott Community College, 2018).

While according to Department of Human Resource of San Francisco City, minimum qualifications reflect the lowest level of acceptable education and experience required of an individual such that the individual reasonably could be expected to satisfactorily perform the duties of the position. Establishing minimum requirements help provide consistency in decision making across benchmarks for managers when determining their needs for a particular position(DHS, 2016).

On the related problems encountered regarding traffic personnel’s qualifications “Competency and Performance Evaluation and Validation” is the theme that emerged from the responses of the key informants on the related problems encountered regarding traffic personnel’s qualifications. One of the key informants stated, “Damo damo gid. For example, nakwa na sila sa BTAO or sa traffic enforcer, iban gapadungol, gaduty hubog, permi late, absences, mga uniform, so ginapatawag ko na sila kag ginaestorya, nga amo na dapat indi na matabo.”(There are lots of instances when they are already hired in BTAO or as a traffic enforcer, some were reported as being nuisance or ignorant, being drunk while on duty, always late and absent, wearing improper uniform; so I’d summon and tell them not to let it happen again.”) This was supported by another key informant stating, “They are not committed, and some of them are not physically fit.” “Secondly, there are some traffic enforcers who are apprehended because of political backing and sometimes, they rely so much on the influence that they are no longer performing their duties well.”
This is supported by Lary (2016) who cited that competency is defined as the integrated knowledge, skills, attitudes and decision-making required to perform within the scope of an individual’s practice; while for Levine and Johnson (2014), competence is more than a checklist; it is about performance. Competency is defined in terms of the “knowledge, skills, abilities and other characteristics (KSAOs) that are needed for effective performance in a job (Campion et al., 2011); hence, one of the important hiring processes is a need for assessment on employees competence in order to measure and see if they’re doing their task well; this measurement is called Competency Validation method. The use of at least two of the following validation methods are required to adequately assess competence: direct observation, employee feedback, return demonstration, rounds, record or document review, continuing education/inservice, simulation, test or verbalization. Those assessing competence must be familiar with the task/process for which they are validating competence. These assessments can be performed by the Chief or Assistant Chief, SPS, or SPS supervisors, educators, or other designated staff members (Department of Veterans Affairs, 2017). Moreover, competency or qualification validation is an indispensable stage for obtaining reliable information about employee potential (Shippmann et al., 2000).

On the importance of trainings in the performance of the traffic personnel

The theme “The Importance of Trainings” emerged from the responses of four key informants on the importance of trainings in the performance of the traffic personnel.

One key informant stated that, “Trainings is very important coz if you want to solve particularly, you’re serving the public, you must be equipped.. whatever endeavor that you have because the training itself could guarantee on how you could be upgraded, your human development.” This is supported by another key informant, “Very very important, considering that would make them fit to implement traffic rules and regulations…that is necessary, that is in fact mandatory, that there must be training for them.” Another key informant stated, “Supreme important… important gid ang trainings..at least confident sila sa ila nga work kag well-equipped man sila kung makesugata sila A+ nga mga taho.” (“Supreme important..trainings are important.. so they’ll be at least confident on their work and be well-equipped when they encounter people from higher society.”)

This is supported by the literature Zamora et al. (2018) that there is a need of trainings for traffic enforcers. Traffic enforcers should be trained in order for them to manage the traffic effectively (SunStar, Gatanela, 2018). Training and development program are needed to improve traffic enforcers knowledge, skills and understanding of traffic rules and regulations (Torregoza, 2017). Traffic enforcers who are equipped with proper trainings and best practices in the enforcement of traffic laws will be able to perform and manage the traffic flow well (SBN 994, Sen. Gatchalian W., 2016). Well-trained traffic enforcers are seen to manage vehicular traffic better and properly deal with sectors contributing to street congestion (PanayNews, Acebuche, 2017). Furthermore, traffic enforcement training program should go along with the changes in the organizational and operational structure to get the best results ((National Academy of Sciences, 2018). According to Vinesh (2014), to enhance the performance of employees in an organization, training and development should be provided; hence, this is one of the important organizational activities as it means to develop “Human” resources to remain efficient in the workplace. Trainings focus on doing activities that will prepare employees for future roles and responsibilities which shall also enhance organization development. Moreover, training is particularly important for new employees as this serves as a platform to get new employees up to speed with the processes of the agency and address any skill gaps (Bhanu Chopra 2015). With trainings, shortcomings and weaknesses of employees are addressed and employees’ performance is improved. Furthermore, employees who have attended the right trainings need lesser supervision and guidance. It is therefore important for employees to be trained as it develops necessary skill sets in employees and enable them to address tasks independently with which also allows supervisors and management to focus on more pressing areas (Bhanu Chopra 2015).
Conclusion
This section presents the conclusion drawn from the results of this study. While the set of recommendations for the stakeholders of this study follow the conclusion.
Bacolod Traffic Authority Office (BTAO) traffic personnel who participated in the study were almost equally divided when grouped according to age, while majority of them were male and have attained college level. When it comes to participants’ length of service as traffic personnel, majority of them have less than 7 years of experience, and it also showed that majority are designated as traffic enforcer, while not all have completed the required trainings.
On the other hand, the findings revealed that the roles of traffic personnel are mainly managing traffic flow and implementing traffic rules and regulations in the city roads. Meanwhile, on their knowledge on City Ordinance 338, it showed that majority of them are highly knowledgeable except on Section V (paragraphs 5 and 8) and Section VIII of the same ordinance wherein they are only moderately knowledgeable.
Moreover, there were no significant differences in the level of knowledge on City Ordinance 338 of the participants when they were grouped according to age, sex, educational attainment, and job designation. However, it showed that there are significant differences in the level of knowledge on City Ordinance 338 of the participants when they were grouped according to length of service and trainings attended as participants whose number of years is equal to or greater than 7 years have higher level of knowledge on City Ordinance 338 than the other group which have less than 7 years of service. The differences between these two groups were found to be statistically significant.
Furthermore, the top most challenge experienced by the participants of the study is the arrogance of drivers wherein almost half of the participants have experienced this problem. The lack of discipline which includes disregarding traffic rules and regulations among drivers follows next. Moreover, ignorance of the traffic rules and regulations among road users, attitude of drivers, bad weather conditions, high volume of vehicles and road widening projects were also among the challenges encountered by the traffic personnel.

References