

Evaluating the Effectiveness of CIM system: A system that use by the Belize Police departments

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Abstract

This research encompasses major findings about the effectiveness of the Crime Information Management System (CIMS) implemented in the Belize police department around the country. Furthermore, techniques that were used by Management Information Systems students at the University of Belize were implemented to construct a questionnaire that integrates various aspects to determine the effectiveness of CIMS. The aim was to investigate how the use of this information system improves the overall performance in the entire department and to reveal challenges associated with using it in 3 districts namely, Orange Walk, Cayo and Belize.

Keywords: effectiveness, success, information quality, system quality, service quality, user's satisfaction, use, and perceived benefits.

Background information

Management Information Systems provide several benefits to the business organization which are: providing a means of effective and efficient coordination between Departments; quick and reliable referencing; access to relevant data and documents; reducing human capital through technological utilization in daily tasks; improvement in organizational and departmental communication techniques; management of day-to-day activities (as accounts, stock control, payroll, etc.); day-to-day assistance in a Department, closer contact with customers and access to global information about Information System developments. MIS provides a valuable time-saving benefit to the workforce. Employees do not have to collect data manually for filing and analysis. Instead, that information can be entered quickly and easily into a computer program. As the amount of raw data grows, it becomes too large for employees to analyse which causes business analysts and Information technology employees to build programs to access the data and information in response to queries by management. With

faster access to needed information, managers can make better decisions about business procedures, future directions, improved customer service and developments by competitors. We are living in a time of great change and working in an Information Age. Managers have to assimilate masses of data, convert that data into information, form conclusions about that information and make decisions leading to the achievement of business objectives. For an organization, information is a resource that is as important as money, machinery and manpower. It is essential for the survival of the enterprise.

Introduction

Technology is improving and its impact provides ease and speed. Information systems have been enhanced to facilitate the performance of businesses to operate more effectively and efficiently. Moreover, along with its capabilities it triggers more rapid decision making and sophisticated designs which benefit and suite objectives of the company. The Belize Police Department uses the Crime Information Management System (CIMS) to record and update any criminal activity in the country of Belize. All the departments in the country of Belize use the system to continually update existing reports and add daily reports of criminal activities that happen in their respective district. The most essential part of the system is that any department in Belize can view the data and police officers can include reports, but cannot edit any data. Only those in high authority can edit specific data. The purpose of the research is to investigate whether the information system that is used by the police department is effective in recording and retrieving daily activities that happen in the distinct district of Belize. Moreover, it aims to discover whether the users benefit from this system as well as the department in general. The sample for this study consisted of 100 police officers who gave responses in the form of a questionnaire to represent the whole

spectrum of users which is 2000 police officers in total.

The research was conducted by four students of the University of Belize namely, Dhyron humes, Darren Cabb, Tapiwanshe Pahwaringra and Renee Guerra.

The research managed to discovered why some employees show resistance to the information system, while others cope with using it. In order to conduct this research, the Delone and Mclean Information System Success Model was utilized to construct the instrument (questionnaire) which was distributed to police officers in Orange Walk, Belize, Cayo district.

Methodology of use

The instrument used for this research is a questionnaire. The measurement items used to gather information about the effectiveness of the Crime Information System are as follows:

- Information Quality,
- System Quality,
- Complementary Technology Quality,
- Computer Self-Efficacy Measure,
- Service quality,
- User satisfaction,
- Use,
- Perceived Net Benefits.

Moreover, the questionnaire also gathers information about the user's background.

- District
- Age
- Gender
- Level of education
- Working experience

In order to measure the construct of the complementary technology quality, a model developed by Teece (1988) was implemented. To measure information quality, a seven scale-item which was developed by Bailey and person (1983), which is a recognized and standard instrument in the IS field was used.

The system quality construct was measured by four-item scale previously applied by Alshibly (2011). The five-item scale was modified to measure service quality construct and a four-item scale measured adapted from previous studies (Balaban et.al., 2013' Rai et.al., 2002) to measure the use of the information system.

The construct of user satisfaction was measured and implementing through a four-item scale which was developed by Seddon and Yip (1992). A six-item scale taken from (Alshibly, 2011; Tansley et.al. 2001) was used to operate the perceived benefit construct. The construct of computer self-efficacy measure used a ten-item scale that was adapted from Compeau and Higgins (1995). The instrument was measured using a seven-point Likert scale ranging from agree (7) to disagree (1).

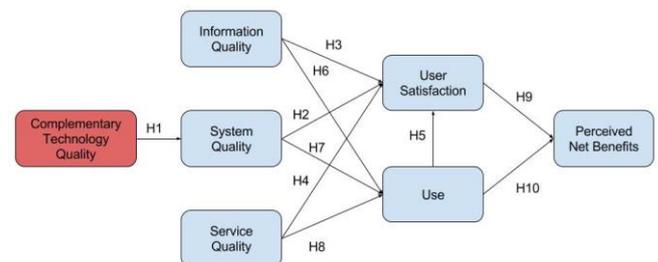


Figure 1

Hypothesis

H1. Information quality will positively influence user satisfaction.

H2. System quality will positively influence user satisfaction.

H3. Service quality will positively influence user satisfaction.

H4. Use will positively influence user satisfaction.

H5. System quality will positively influence use.

H6. Service quality will positively influence use.

H7. User satisfaction will positively influence perceived net benefit.

H8. Use will positively influence perceived net benefit.

Literature review

Management Information Systems is the study of complementary networks that people and organizations use to collect, filter, process, create and distribute data (Laudon & Laudon, 2012). Presently, information systems are being used to facilitate the use of technology in the business environment by collecting, organizing, storing and communicating information. Therefore, developing information systems in business activities is used in analysing and mapping the business structure and processes to create a more efficient system that will promote accurate and effective flow of information. Moreover, it is important to design the information system according to the client's requirements, so that it matches their objectives (Kato Y, 2008). The business experts may not necessarily comprehend the overall business processes accurately: they may only view the processes from their professional background and personal perspective but clients, however, have the capacity and vision to grasp the real world requirements necessary for the system development (Chen H. 2002).

a. Availability of studies in Information Systems

As the use of information Systems becomes broader, so does the research, therefore there was a large amount of research articles and papers that was available to choose from for this literature review. The main source of this research was Ebscohost which is a scholarly platform that provides different research papers from researchers in different parts of the world that explore the implementation, success and the future of Information Systems in those regions which extend

to the rest of the world. The research also offered depth on the IS models that are currently being used and therefore those data have been used as the basis of this research.

b. Similarities Among These Studies

Research by Delone and McLean develops an integrated model of information system (IS) success and the technology-organization-environment framework of firms to provide small-and medium enterprise with the relative importance and knowledge of IS success (2003). According to Ghibakhloo and Tang, prior literature suggests that different measures have been offered to evaluate the success of implemented IS. Looking at IS as the resource available to businesses, and using economic-rationalistic models, IS success has been evaluated and proved to enable performance improvement. Alternatively, IS usage and its benefits have been examined by another stream of IS research which follows the classification of IS success established by Delone and Mclean (Sheddon, P. B.1997).

Studies by M Ghobakhloo and Y Kato focus on accessing the success and improvement of Information Systems in the workplace among employees, and how teaching them a basic IS model and implementing it would allow human resources to have a more effective business structure (Kato Y, 2008). Likewise, Maguire R. Edward (2010) also presented how IS would help the police force become more effective in catching criminals through predictive means of GIS (Geographic Information System), showing that various research examines and agrees that IS is necessary and helpful towards achieving the goals of an organisation.

Managing the implementation and the success of Geographic Information Systems (GIS) in the police force which aids in crime reduction is explored in the research article “Predictive Crime Mapping” conducted by J. Fitterer and an article on a seminar conducted by the Executive Director of the International Association of Assessing Officers (IAAO) and Urban and Regional Information System Association (URISA). The seminar by the IAAO and URISA provided “A thorough overview concept, functions, applications, technologies, trends, problems and solutions associated with GIS” (2002), while research by J Fitterer would map out, summarise and compare trends in crime activity over various locations to try and predict future crimes aiding the police in their daily patrols (2015).

The police departments are using a crime management information system to enhance their work-environment by facilitating collection, storing, and interpretation of data for future decision making that will minimize crime rates. Likewise, geographical information systems (GIS) have emerged as a key tool in intelligence-led policing and spatial predictions of crime rates which are being used by many police officers to reduce crime rate (Fitterer, Nelson, and Nathoo, 2015). Additionally, the intelligence-led policing is a growing discipline where data, analysis, and criminal theory are used to guide police allocation and decision making (Li, E. Y., (1997). Giving that crime occurs within a geographical context that includes both space and time, information to support intelligence-led policing is increasingly map-based and can benefit from platforms that allows integration with geographic information system (Fitterer, Nelson, and Nathoo, 2015). In some regions, spatial predictions of crime are already being used by police to reduce crime. For example, the Los Angeles police department has used spatial predictions of crime to pre-emptively allocate patrol units and have estimated that geographical crime rates have decreased.

c. Differences

Various research done on the use of Information systems in the police department are specific to the location and environment that the IS is being used in. Maguire R. Edward and Archbold Carol (2017) identify the benefits of using information systems in the police department which implies that the information system can be used to record vast data, access and analyse data from citizens, which can be used to “hot spot” or predict crime in certain geographic location. Moreover, Doll WJ, Torkzadeh G (1988) stated, while many large police departments today have made enormous improvements in their capacity to collect and store large amounts of data, many have made little progress in using the data they collected. Developing the ability to use data for improving operations and management may pose an important challenge for police organizations globally.

According to Manish Gupta et.al (2015) a study that was conducted on a police department in India, stated that the police department constructed a Crime Criminal Information System to keep ahead of criminal activities in the country. This department uses this IS to address several problems they face in their country and to reduce the crime rate in the country. Moreover, in order to build this information system, they had to take into consideration the Indian police structure, responsibilities of the police in the department and also the key changes and challenges the police is facing due to high crime rate. Therefore, there was a need of a support system that will emphasise the role and activities that the police department in India operates. More essentially, the study indicated that the information system is a success in the country as a means to combat criminal activities.

According to a document written by the National Institute of Justice, the New York police department uses an IS called Criminal Record Information and Management System (CRIMS). “The Criminal Record Information and Management System is an automated case management computer program designed

exclusively for criminal trial courts. This CRIMS provides the latest status on a court criminal case and it is essential in the determination and verification of a possible warrant” (2005). Given all the major advancements in computerized information management with respect to law enforcement and the perceived and actual benefits associated with them, it would be fair to conclude that the need for a computerized platform for crime information management cannot be overemphasized. CIMS increases the efficiency of the management of criminal records and acts as a foundation to decision making and improved reliability of the law enforcement operation.

d. Gaps

Although the studies mentioned above show the use of IS in the police force and explore various issues in the use of IS in the police department, there are some areas that the research did not cover. Firstly, none of the research was done in Belize in order to get feedback on the effectiveness of the Information System (CIMS) that is used in the police department to record data on criminal activity and investigations. Another gap that was discovered in these studies is the length of

time or the level of difficulty in grasping the skill to access and use an IS effectively by Police Departments in order to achieve effectiveness in their jobs. Although researchers have comprehended the usefulness of IS within an organisation, a gap has been left that aims to explore the possible benefits, if any, of the IS system to external stakeholders and if these external stakeholders see and can attest that the organisation has indeed become more effective in their service, and if the IS model poses more benefits for the organisation internally, or to its external users.

e. How this study differs

The purpose of the Crime Investigation Management System (CIMS) utilized by the Belize Police Department is to store data for comprehensive research and analysis, providing key factors within the Police Department with salient information via its extrapolation capabilities. The focus of this study will be to evaluate the effectiveness of CIMS in the Belize Police Force and to find out to what extent the Police use it or rely on it to complete daily tasks.

Analysis

The survey was conducted in three districts of Belize Namely, Cayo, Belize and Orange Walk. Our target population was 100 police officers out of a total of 2000. One hundred questionnaires were distributed distinctly to the three districts. [table 1](#) shows the three districts where the survey was conducted, including the frequency of participants and [pie chart 1](#) showing the percentage of the participants in the three districts, respectively.

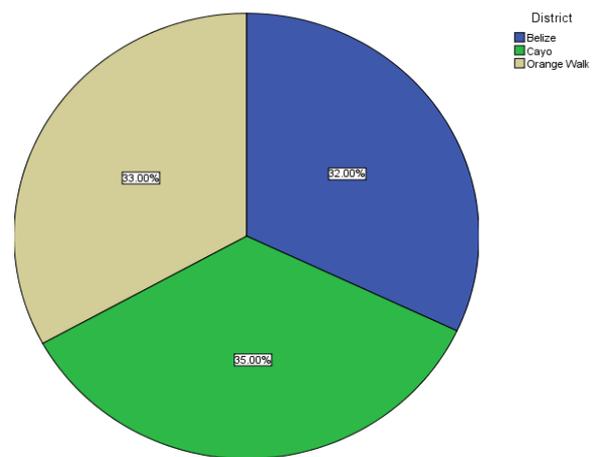
Therefore, 32% or 32 questionnaires were distributed in Belize district, 35% or 35 questionnaires were distributed in the Cayo district and 33% or 33 questionnaires were distributed in Orange Walk district.

District

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Belize	32	32.0	32.0	32.0
Cayo	35	35.0	35.0	67.0
Orange Walk	33	33.0	33.0	100.0
Total	100	100.0	100.0	

Table 1

Pie chart showing three different district where the survey was conducted



pie chart 1

Moreover, [table 2](#) illustrates the gender of each participant. In the Belize district more males than females participated; 26 out of 32 were male and 6 out of 32 were female. Likewise, in the Cayo district, 23 out of 35 of the participants were male and 12 out of 35 were female. On the other hand, Orange walk district had the closest frequency of male and female participants; 17 out of 33 were male and 16 out of 33 were female.

Table 2

Table 3

Gender of participants and corresponding district

Gender	District			Active Margin
	Belize	Cayo	Orange Walk	
Male	26	23	17	66
Female	6	12	16	34
Active Margin	32	35	33	100

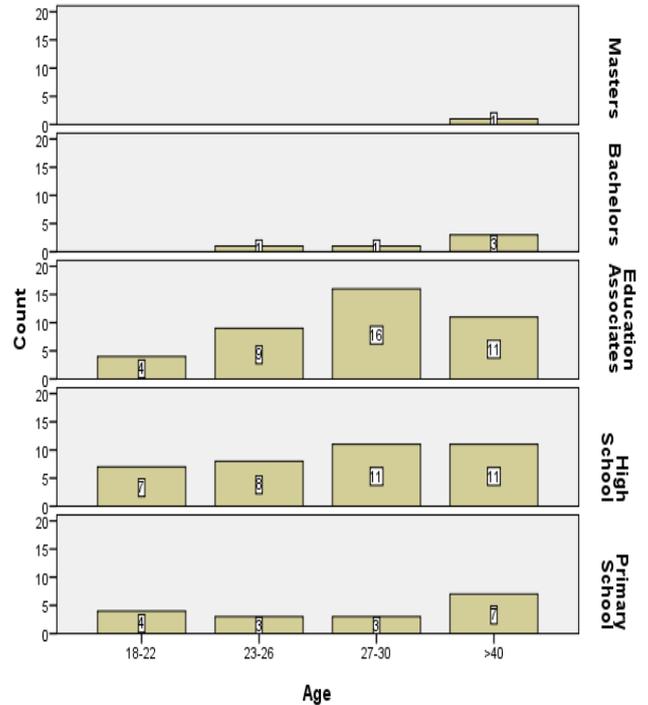
Age range of participants and gender

Gender	Age				Active Margin
	18-22	23-26	27-30	>40	
Male	7	9	21	29	66
Female	8	12	10	4	34
Active Margin	15	21	31	33	100

Ages and Level of Education of Respondents

Furthermore, out of the 100 participants 15 are between the ages 18-22 years, 4 holding a primary school level of education, 7 holding a high school diploma, 11 have a high school education, 16 have an associate's degree and 1 individual have a bachelor's degree. While, 33 are of ages >40 years, 7 have a primary school education, 11 have a high school education, 11 have an associate's degree, 3 have a bachelor's degree and 2 individuals have a master's degree. *Bar graph 1* summarizes the ages and level of education of all the hundred participants.

Bar Graph showing different ages of the participants and their level of education

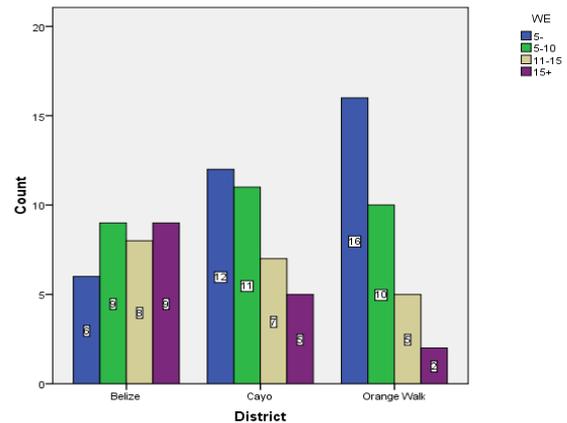


bar graph 1

Working Experience

Out of the 32 participants in Belize district, 6 out of 32 have working experience of less than 5 years, 9 have a working experience of 5 to 10 years, 8 have working experience of 11-15 years and 9 have working experience of 15 years and more. When it comes to the Cayo district, out of the 35 participants 12 have working experience of less than 5 years, 11 have working experience of 5-10 years, 7 have working experience of 11-15 years and 5 have working experience of 15 years or more. While in the Orange Walk district, out of the 33 participants, 16 have working experience less than 5 years, 10 have working experience between 5-10 years, 5 have working experience between 11-15 years and only 2 individuals have working experience of >15 years.

Bar Chart Showing the working experience of various participants in Cayo, Belize, and Orange Walk District



bar graph 2

Bar graph 2 illustrates the number of participants in their respective district and their level of experience.

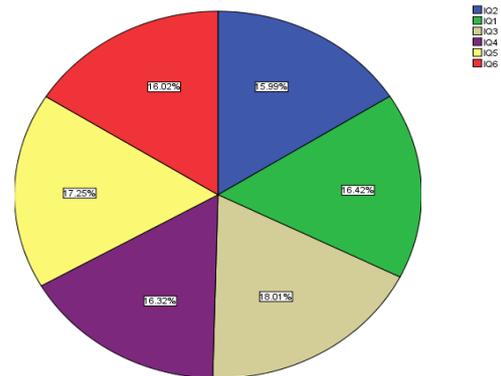
CIMS Information Quality

The [pie chart 2](#) below show the percentage of the participants in the three districts that strongly agree to the effectiveness of the information quality of CIMS. The data gathered from the survey showed that 16.42% percent of the participants strongly agreed that the CIM system provides information that is exactly what they need. 15.99% percent of the participants strongly agreed that the CIM system provides information they need at the right time. 18.01% percent of the participants strongly agreed that the CIM system provides information that is relevant to their job. 16.32% percent of the participants strongly agreed that the CIM system provided sufficient information. 17.25% percent strongly agreed that the CIM system provided information that is easy to understand. While 16.02% strongly

agreed that the CIM system provided up-to-date information.

Looking at the figures, it shows that Information quality that CIM system provides is moderately low and needs improvements facilitate its use and improve performance.

Pie Chart Showing The Percentage of Participants Strongly Agreeing to the Effectiveness of Information Quality

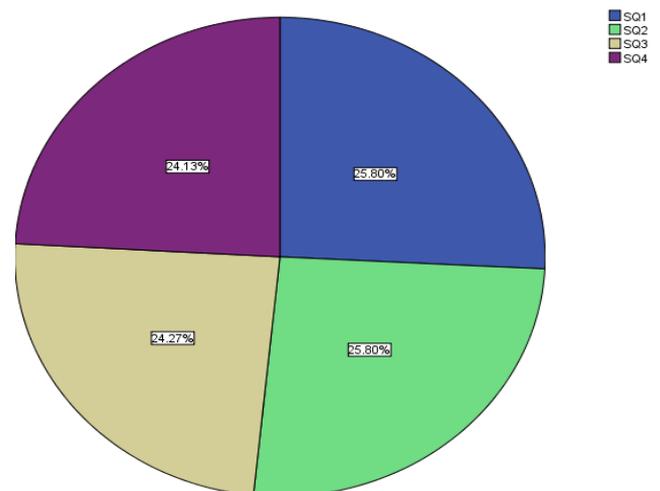


pie chart 2

CIMS System quality

The [Pie chart 3](#) illustrates the effectiveness of the system quality that CIM system provides, 25.80% percent of the population strongly agreed that the CIM system is easy to use and 25.80% percent strongly agreed that the CIM system is user-friendly. 24.27% percent agreed that CIM system provides high-speed information access, while 24.13% percent strongly agreed that CIM system provides interactive features between users and the system.

Pie Chart Showing the Effectiveness of Service Quality

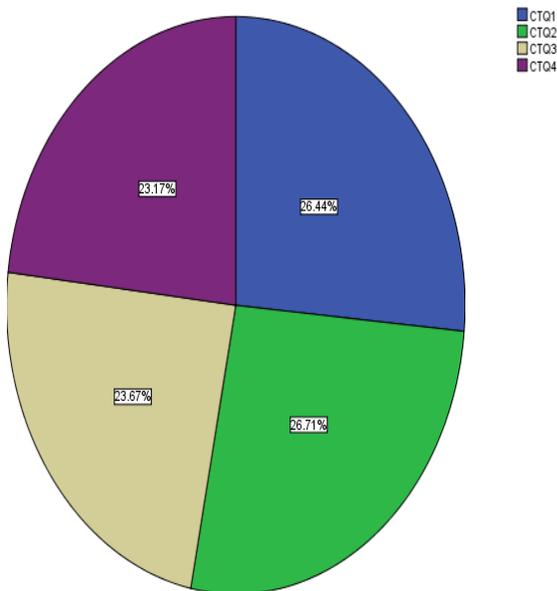


pie chart 3

CIMS Complementary Technology Quality

Pie chart 4 illustrates that 26.44% percent of the respondents strongly agreed that the software on the device (desktop, computer, laptop, mobile device) used to access the CIM system is adequate. 26.71% percent strongly agreed that the device hardware (desktop computer, laptop, mobile device) used to access the CIM system is adequate. 23.67% percent strongly agreed that the speed of the internet connection used to access the CIM system is adequate. While, 23.17% percent strongly agreed that the reliability of the internet connection used to access the CIM system is adequate. It is evident that the internet connection that the police department is not as adequate as it supposed to be. Therefore, the speed of the internet must be upgraded to match the standards and the expectation of the system to function more effectively.

Pie Chart Showing the Effectiveness of Complementary Technology Quality

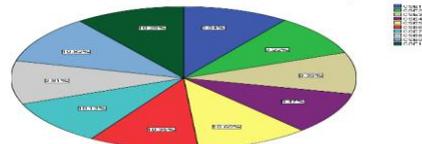


pie chart 4

CIMS Computer Self-Efficacy Measure

Pie chart 5 shows 9.94% of the respondents strongly agreed that they could complete the job using the information system if there was no one around to tell them what to do. Furthermore, 9.22% percent strongly agreed that they could complete the job using the information system if they had never used and information system like it before. 9.39% percent strongly agreed that they could complete the job using the information system if they had only the information system manuals for reference. In addition, only 9.47% percent of the respondents strongly agreed that they could complete the job using the information system if they had seen someone else using the information system before trying it themselves. 10.60% percent strongly agreed that they could complete the job using the information system if they could call someone for help if they got stuck. 10.35% percent strongly agreed that they could complete the job using the information system if someone else help them get started. 10.13% percent strongly agreed that they could complete the job using the information system if they had a lot of time to complete the job for which the information system was provided. 9.81% percent strongly agreed that they could complete the job using the information system if they only had the built-in help facility for assistance. While, 10.82% percent of the respondent strongly agreed that they could complete the job using the information system only if someone shows them how to use it first. Likewise, only 10.26% percent strongly agreed that they could complete the job if they had similar information systems before the CIMS to do the same work.

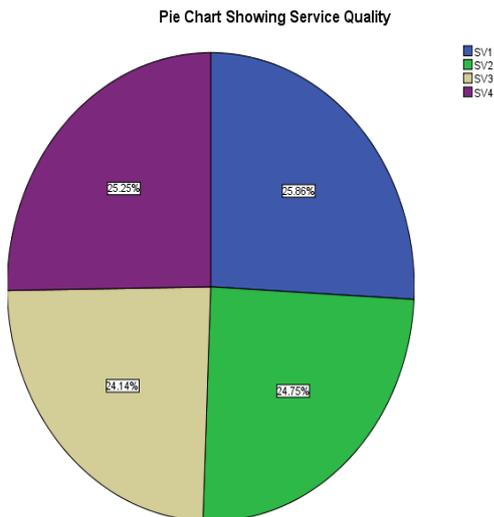
Pie Chart Showing the Effectiveness of Self-Efficacy Measures



pie chart 5

CIMS Service Quality

Pie chart 6 illustrates the effectiveness of the CIMS service quality which are as follows: 25.86% percent of the respondents strongly agreed that the support staff keep the CIM system software up to date. 24.75% strongly agreed that when users have a problem the CIM system support staff show interest in solving it. Likewise, 24.14% strongly agreed that the CIM system support staff respond promptly when users have problems. Similarly, 25.25% percent of the respondents strongly agreed that the CIM system support staff tell users exactly when services are performed. Overall, the service quality must be enhanced to well match the performance of the CIM system expectations to the users.

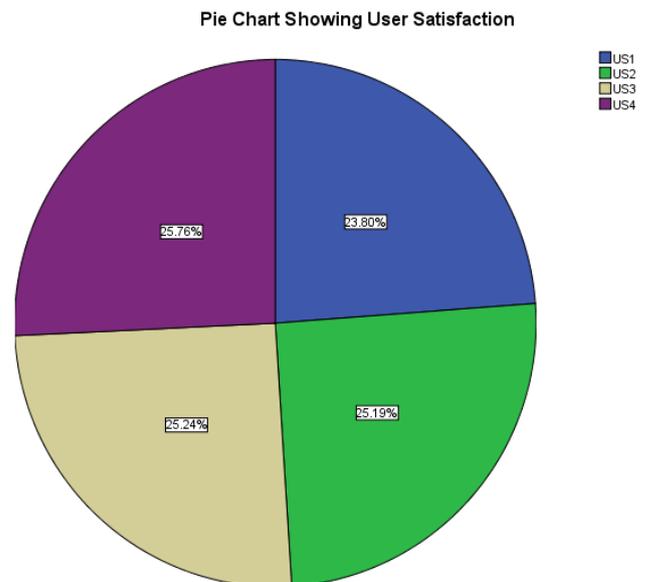


pie chart 6

CIMS User Satisfaction

In evaluating user satisfaction, a scale of never-to - often was used. Four major questions were asked to determine the effectiveness of CIM system for user satisfaction. *Pie chart 7* shows that 23.80% percent of the respondents said that most of the users often bring a positive attitude or evaluation towards the CIM system function. Moreover, 25.19% percent often think that the perceived utility about the CIM system is high. In addition, 25.24% percent often believe that CIM system has met their expectations. Likewise, 25.24% percent of the respondents are often satisfied with the CIM system.

It is noticeable that the overall user satisfaction is moderately low. Therefore, the CIM system needs to be enhanced to create or increase its user's satisfaction.

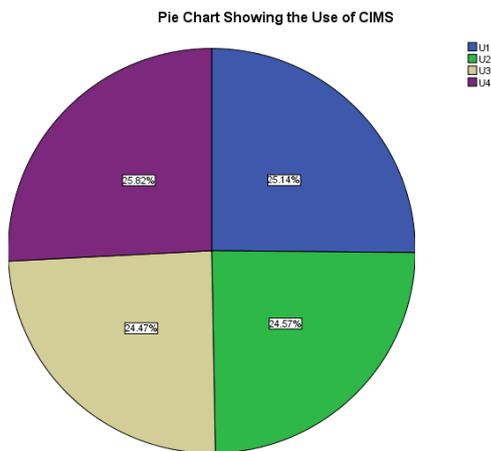


pie chart 7

CIM System Use

In determining the effectiveness of the CIM system use, 25.14% of the respondents believe that the frequency of use of the CIM system is often high. While only 24.57% of the respondents believe that they depend upon the CIM system. Moreover, 24.57% of the respondents often believe that they are able to complete their job using the CIM system even if their was no one around to tell them to do it as they go. Lastly, only 25.82% percent of the respondents often think that they have the knowledge necessary to use the CIM system.

The [pie chart 8](#) show the percentage of use for each the questions.



pie chart 8

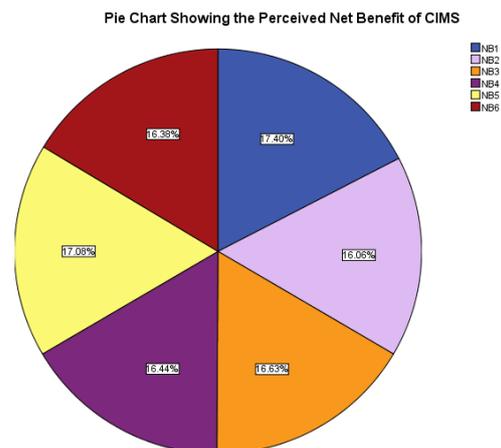
CIM System Perceived Net Benefit

In Measuring the perceived net benefit of using the CIM system six questions were used and were scaled from never-to-often. 17.40% percent of the respondents believe that the CIM system often helps them to improve their job performance. In terms of cost reduction, 16.06% percent believes that the CIM system helps, while 16.63% percent believes that the CIM system often helps the organization achieve its goals.

16.44% percent of the respondents believe that using the CIM system on the job often increases their productivity. In addition, 17.08% percent believes that using the CIMS often improves the assessment and training.

In the overall recruitment and performance management, 16.38% percent of the respondents believe that CIM system is often helpful.

[Pie chart 9](#) summarize the perceived net benefit of CIM system.



pie chart 9

Findings, limitation, responses to hypothesis and Conclusion

1) Findings

- i. The major issue that affects the effectiveness of the CIM system is that the internet speed in which based on the results of this study was revealed to be very slow. Many police officers are not able to fully use the CIM system due to its incapacity to work without internet.
- ii. Moreover, many of the respondents disagreed that the CIM system is easy to use and that it is user-friendly.
- iii. According to the results, the software on the devices and the device hardware used to access the CIM system is not as adequate as it is believed. A small percentage of the police officers is satisfied and able to adequately use the CIM system while the larger percentage is not satisfied.
- iv. When it comes to the service quality, the majority of the respondents believe that the CIM system service quality is poor, that the CIM system is not maintained consecutively, resulting in underperformance and high negative attitudes goes towards the CIM system function.
- v. The CIM system offers little help in saving costs in the police department, due to the high cost of maintaining the information system and purchasing of devices to access it.

2) Recommendations:

- A. First of all, the internet speed must be enhanced for the users to adequately access the CIM system anywhere.
- B. The CIM system must be designed to be more user-friendly.
- C. The devices used to access the CIM system must be maintained constantly and efficiently.
- D. The service quality that CIM system provides must be improved to acquire a higher level of user satisfaction.
- E. Moreover, the CIM system must be designed to help the company save costs instead of increasing expenses for the Police Department.
- F. Training on how to use and manoeuvre the system is lacking, therefore it is greatly needed in the police department country wide along with constant follow-ups and evaluations of user performance.
- G. Overall, the system needs to be updated to be able to accommodate the implementation of new laws and regulations that will encourage police officers to use the system.

3) Limitations:

There were three very significant limitations associated with carrying out this research:

- The first limitation has to do with the method that was used to conduct the data analysis. Due to the fact that there was not enough time to survey a higher number of police officers and we were not able to conduct the survey on all the districts in Belize. The sample for this study only included one-hundred Police Officers and therefore is not representative of the total population. The data was analysed by utilizing research from only 3 districts to draw a conclusion.
- Secondly, a larger portion of police officers with some experience of using CIMS were not available at the time that the questionnaires were distributed.

- Thirdly, there were struggles encountered with summarizing the responses in order to give more accurate results given that the questionnaire required responses which were limited to the scales provided. Respondents could not express the extent of their satisfaction or dissatisfaction.

4) Responses to Hypothesis

H1. Information quality will positively influence user satisfaction.

H2. System quality will positively influence user satisfaction.

H3. Service quality will positively influence user satisfaction.

H4. Use will positively influence user satisfaction.

H5. System quality will positively influence use.

H6. Service quality will positively influence use.

H7. User satisfaction will positively influence perceived net benefit.

H8. Use will positively influence perceived net benefit.

- The overall information quality was assessed to be inadequate, therefore negatively influencing user satisfaction.
- At least half of the population agreed that the CIM system is easy to use and user-friendly, therefore it positive influences user satisfaction.
- If CIM system service quality is high, then it will positively influence user satisfaction. Therefore, the CIMS service quality is not effective which leads to unsatisfied users.
- CIM system is not used continuously, therefore it creates unsatisfied users.
- The majority of users said that the CIM system is not easy to use and is not user-friendly, therefore it influences the frequency of which they use of the system.
- CIM system service quality negatively influences use.
- If users are satisfied with the use of CIM system, then it will positively influence perceived net benefits. In this case, a large percentage of the users are not satisfied with the CIM system, therefore negatively affecting perceived net benefits.
- If the system is constantly used, then it positively impacts perceived net benefits, as it was said the CIM system is not being used frequently, therefore negatively impacting perceived net benefit.

Conclusion

MIS provides several benefits to the business organization: the means of effective and efficient coordination between Departments; quick and reliable referencing; access to relevant data and documents; use of less labour; improvement in organizational and departmental techniques; management of day-to-day activities (as accounts, stock control, payroll, etc.); day-to-day assistance in a Department and closer contact with the rest of the world. MIS provides a valuable time-saving benefit to the workforce. The CIM system that the Belize police department is currently using needs more updated measures to effectively and efficiently carry out the daily activities of the different departments in Belize.

Reference

- Delone WH, McLean ER (2003) The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems* 19(4): 9–30.
- Doll WJ, Torkzadeh G (1988) The measurement of end-user computing satisfaction. *MIS Quarterly* 12(2): 259–274.
- Chen, H., et al. (2002). Decision Supports System. *COPINK Connect: information and knowledge management for law enforcement*. 34, pp. 271-285.
- Fitterer. J, Nelson. T.A, Nathoo. F, (2015) "Predictive Crime Mapping" *Police Practical and Research*, Vol. 16, No.2, 121-135
- Ghobakhloo M, Tang. S.H, (2015) "Information system success among manufacturing SMEs: Case of developing Countries" *Information Technology for Development*, Vol. 21, No. 4, 573-600.
- Gupta Manish et.al, (2015) "Crime data Mining for Indian Police information system" *Indian Institute of Technology Delhi, Hauz Khas, NEW Delhi*, Retrieved from http://www.w.csi-sigegov.org/1/40_410.pdf
- Levy, Y., & Ellis, T. J., (2006). *Information Science Journal. A Systems Approach to Conduct an Effective Literature Review in Support of Information Systems Research* Vol. 9, pp. 181-212.
- Li, E. Y., (1997). *Information & Management. Perceived Importance of Information System Success Factors: A Meta-Analysis of Group Differences*. Vol. 32 (1), pp. 15-28.
- Maguire R. Edward, Achbold Carol, (2016) "Police: Organization and Management- Information Technologies and The Police", Retrieved from <http://law.jrank.org/pages/1675/Police-Organization-Management.html>
- Sheddon, P. B. (1997). *Information System Research. A Respecification and Extension of the Delone and McLean Model of IS Success*. Vol. 8 (3).
- Willian, D. H., & Ephraim, M. R. (2003). *Journal of Management Information Systems. The Delone and McLean Model of Information System Success: A Ten-Year Update*. Vol. 19, issue 4. pp. 9-30.