

An Intervention in the Human Resource Department, General Administrative Division, in the Ministry of National Security on the Effectiveness of Return of Investments (ROI) From Training

Sarika Baran

The University of the West Indies

doi: <https://doi.org/10.37745/gjhrm.2013/vol12n356124>

Published June 10, 2024

Citation: Baran S. (2024) An Intervention in the Human Resource Department, General Administrative Division, in the Ministry of National Security on the Effectiveness of Return of Investments (ROI) From Training, *Global Journal of Human Resource Management*, Vol.12, No.3, pp.56-124

ABSTRACT: *This study investigates why public sector organisations, specifically the General Administrative Department in the Ministry of National Security, must reassess their Training and developmental programs to maximise their effectiveness and efficiency. As a result, the Human Resource Unit will be the focus of this study to determine the Return on Investment in Training and Development and how to increase its effectiveness and efficiency within the Ministry of National Security and, by extension, all its subsidiaries. The evaluation of investments in enhancing employee knowledge, skills and abilities is expected to benefit the organisation and usually requires the output of substantial amounts of resources on the company's part. Thus, it is crucial to assess training initiatives efficiency (Goldstein, 1986; Hinrichs, 1976; Kirkpatrick, 1978; Wexley & Latham, 1981). In the General Administration Division of the Ministry of National Security, the returns from Training are commonly assessed using the Kirkpatrick model as outlined by Cabinet Minute 2140 (1998). Such assessments within the organisation can help evaluate training programs' benefits and whether they contribute to achieving their objectives. The method of evaluation currently utilised by the General Administration Division is the Kirkpatrick model. In this study, the Kirkpatrick model will serve as the guiding framework for analysing the collected data. The chosen methodology for this study was the mixed-method simple approach, which, as the name suggests, consists of applying more than one data type. Hence, the data collection method would consist of both qualitative and quantitative data, and the channels used include primary and secondary data gathered through interviews, questionnaires, books, and scholarly articles. Upon completing this study, the main issue identified was the Ministry's lack of fully utilising the Kirkpatrick model in evaluating its implemented training and development programs. According to the data collected, emphasis is placed more on levels 1, which is the reaction, and 2, which is learning. At level 3, which is behaviour to level 4 (results), it shows little to no focus as use diminishes, leaving the findings lacking in accuracy and validity. Findings also suggested that the responses are lower than expected in its post-assessment attempts to generate much-needed feedback. The recommendations were based on the insights that evolved from the diagnosis and findings portion of this research paper and were guided by the Kirkpatrick model used in the evaluation of Training and development, together with the complement of the Phillips Return of Investment model. The main recommendation is to properly execute the Kirkpatrick*

model from levels 1 to level 4 as intended to properly assess the training effectiveness and efficiency. This would involve running post-assessment evaluations from levels 1 to 4 and noting the increase in levels of complexity in the type of data collection and application being used. Progressing to levels 3 and 4 will take more time to complete and require more resources. However, once the Model is appropriately executed, it would allow the organisation to make more informed decisions regarding using its resources and the effectiveness and efficiency of Training and developmental programs implemented. Finally, the paper outlines an action plan for implementing an evaluation process for Training that can also be applied to the evaluation process of any project undertaken by the General Administration Division, any Governmental agency or organisation. In the implementation process, it illustrates the data collection plan, an explanation of the tabulation of program costs, calculation of the ROI, converting the data to monetary benefits and an evaluation plan in the form of a gnat chart. This process gives a clearer idea of the responsibilities and accountability of each employee as they aim to achieve the organisation's goals. Future insights would encourage further research on other evaluation methods to determine which best meets the organisation's needs in assessing training and development effectiveness and efficiency.

KEYWORDS: Intervention, human resource department, general administrative division, Ministry of National Security, return of investments (ROI), training

INTRODUCTION

My colleague and I have experience working in the public sector, where we service the public directly and indirectly. Pursuing Human Resource Management (HRM) was a natural choice, and having a keen interest and passion for Training and development was the main reason for choosing this research topic. People are the greatest asset of any country, company, or institution as they possess the knowledge and skills needed to make it successful. Training and Development (T&D) assists in augmenting the performance of an organisation while bringing about measurable changes in employees' knowledge, skills, ability, and social behaviour. The National Development Strategy of Trinidad and Tobago 2016 - 2030 states one of its objectives is monitoring and evaluating towards strengthening Performance Measurement (MPA 2021). When individuals are professionally trained, employees are better equipped to operate at his or her greatest potential. This results in higher efficiency of staff engagement and worker commitment.

To prove the validity of pursuing such a study, we would have looked at similar studies that were conducted, considering where and, how the study was conducted as well as their outcomes. According to a Singapore study (Tessema 2007) the focus was placed on not how many civil servants are trained, but how they are trained and utilized. In the Singapore study (Tessema 2007) states that, the multiple stakeholder approach was used, by which information was gathered from providers, recipients, and monitors of the civil training activities. The study also discussed the way Singapore's civil service training institutions are managed and provided invaluable insight into the success of the civil training institutions. In a Pakistan study

(Rehaman 2017), they attempted to bridge the literature gap by proposing a diagnostic model for measuring the degree of effectiveness of training interventions that was conducted for civil servants. To achieve its desired results, the paper utilized a blend of descriptive and exploratory research methods to conduct its research. Thus, developing a framework by which any organization (be it public or private) can use to measure and monitor training effectiveness and diagnose problems at various stages of the training cycle. Based on this previous research in support of ministry training and development effectiveness, in this context, this project is a researchable one, that we will undertake as consultants to complete our practicum thesis.

As such, this study will therefore be conducted in the following format: section one will entail the background where the ministry would be looked at from both the historical and current perspective. This would then be followed by section two which would contain in the focus of the thesis paper: the organizational data, literature review and methodology. The implementation plan process, monitoring, and evaluation will be discussed and rolled out in section three of the thesis paper.

BACKGROUND

According to the words of Zig Ziglar (1926) “what is worse than training your workers and losing them? Not training them and keeping them!” In this section we will speak to the situational analysis of the GAD of the MNS by looking at both the historical and current scenarios within the Ministry, with a particular focus on the Human Resource Relations aspect. This section would utilize tools and frame works such as McKinsey 7s Model, PESTLE, and SWOT analysis as we delve into the overview of the MNS.

Historical View

In this section, we will look at the evolution of the Ministry as it relates to the HRU, in which a timeline will be used to highlight the historical changes that would have transpired over time. The MNS has a long and evolutionary history that spans over sixty (60) years from its inception. The Ministry was initially called the Ministry of Home Affairs and tasked with the responsibility of the administration of the Police Service, the Social Services Department (which included Public Assistance, Old Age, the Co-operative Department and Community Development), the Immigration Service, the District Administration Services, Cadet Corps Movement, and the Government Printery. The Ministry of Home Affairs was overseen by Dr. Patrick Vincent Charles Joseph Solomon (1962), who served between 1959 and 1964—followed by 23 others who held the office of the Minister in the MNS, inclusive of some notable names such as Dr Eric Williams (1970),_Mr George Chambers (1970), Mr Basdeo Panday (2000), Mr Jack Warner (2013), Mr Gary Griffith (2015), and Stuart R. Young (MP) (2001) and the Honourable Minister Fitzgerald Hinds (MP) current Minister of the MNS.

Over time, the portfolio of the MNS had undergone drastic changes, where some responsibilities were added, and others were removed from its assigned portfolios. Some agencies that were no longer under the purview of the MNS included the Social Services Department, the District Administration Services, and the Government Printery. The attainment of independence in 1962 gave impetus to the organisation to focus on new services as dictated by the newly developed Constitution of Trinidad and Tobago. Namely, the Defence Force consisted of the Trinidad and Tobago Regiment, the Trinidad and Tobago Coast Guard, and The Trinidad and Tobago Fire Service. In 1970, the Probation Department was removed from the Ministry of Home Affairs, and the Ministry of Home Affairs was renamed the MNS.

Training within the MNS started long before the Ministry itself was even formed. In 1838, the abolition of slavery resulted in over 22,000 men and women now having civil rights, fueling the need for some policing system as their responsibilities increased. By 1842, some one hundred police officers were trained in the skills of policing, inclusive of inspectors, sergeants, and constables. The Training and development conducted at this time took on a more informal structure that focused more on skills training, particularly on baton and firearm use. These training sessions were one-on-one, where the officers were taught through explanation. At that time, these training exercises were conducted by members of the Metropolitan Police, and the MNS has maintained the lead in developmental Training as it is not only responsible but supports Training within all the other arms of the Ministry today.

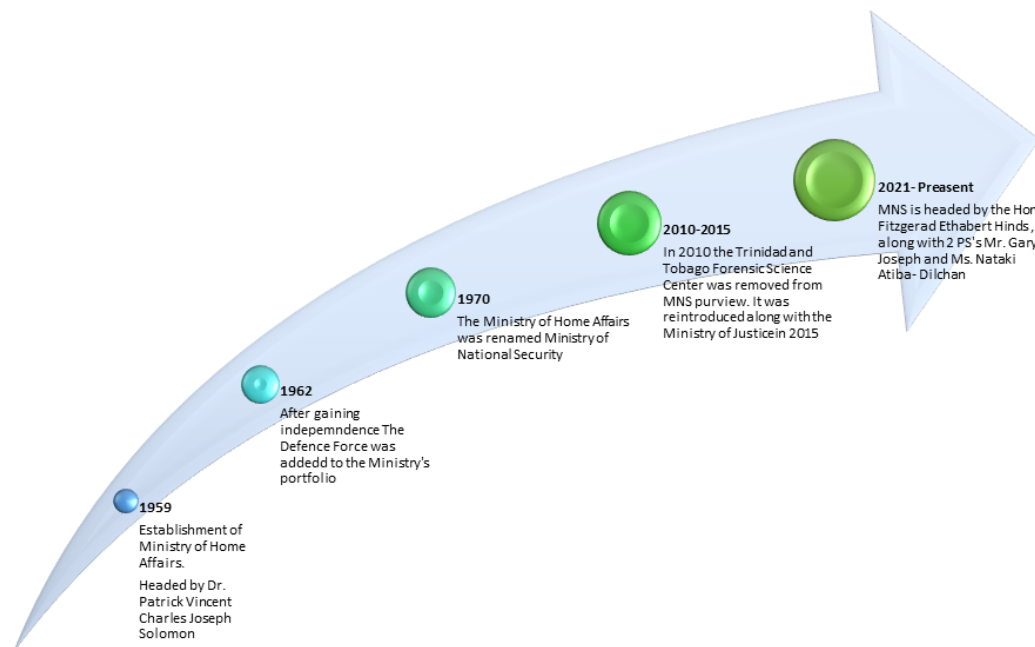


Figure 1. Timeline of the MNS

Figure 1 : gives a snapshot of some of the major events as they occurred during the evolution of the MNS from its establishment as the Ministry of Home Affairs to present where it is now known as the MNS.

BUSINESS DESCRIPTION

General Overview of the MNS

The Honourable Fitzgerald Ethelbert Hinds currently spearheads the MNS (2022). He was appointed Minister of the MNS on April 19th, 2021, bringing a wealth of experience and ability. Minister Hinds first served in the capacity of Minister of the State in the MNS between the periods of June 2004 and November 2007. He served as a member of the TTPS in 1976 and a practising law attorney for over 20 years. He holds a Bachelor of Law Degree and a Master of Law Degree, specialising in Government and Constitutional Law. He has also made significant contributions to the enactment of legislation relating to the administration of justice

in Trinidad and Tobago, inclusive of the Kidnapping Bill, the Firearms Bill, the Police Service Bill, the Police Complaints Authority Bill, and the Evidence Amendment Bill (MNS 2022).

Along with the Minister in the MNS, there are two Permanent Secretaries, Mr Gary Joseph and Ms. Nataki Atiba-Dilchan. Mr Gary Joseph assumed the role and has been acting as Permanent Secretary in the MNS since January 13, 2020. Mr. Joseph brings over 30 years of experience and knowledge, having served in many ministries in various capacities. Some of these are the Personnel Department, the Ministry of Public Utilities, Community Development, and the Ministry of Justice. Ms Atiba-Dilchan has been Permanent Secretary since January 13, 2021, and has vast experience and knowledge from working in the Public Service. Her portfolio includes her involvement in the Ministry of Foreign Affairs as parliamentary Clerk, Clerk of the Senate, acting PS in the Ministry of Communications and PS (Permanent Secretary) in the Ministry of Attorney General and Legal Affairs. Both PSs are equipped and ready to serve in their abilities in the MNS.

The MNS (2022) is one of the largest and most complex governmental institutions, and its primary responsibility is to focus on maintaining and ensuring the public's safety and sustaining the well-being of the Nation's Borders. To support its functions, the Ministry is staffed with approximately 21,000 persons, which includes critical agencies as listed below:

- Trinidad and Tobago Defence Force
- Trinidad and Tobago Police Service
- Trinidad and Tobago Fire Service
- Trinidad and Tobago Prison Service
- Trinidad and Tobago Cadet Force
- Immigration Division
- Office of Disaster and Preparedness
- Trinidad and Tobago Forensic Science Centre
- Strategic Services Agency (Specially mandated Agency at the Divisional Head)

General Administration

Training within the MNS has come a long way since its inception. One of the more notable changes within the Ministry, as it relates specifically to Training and Development, is that it disseminates Training well-structured and accredited. Previously, when Training was conducted, it was done in a more informal setting, whereas now most training programs are built by Curriculum Specialist, where curriculum committees meet with subject matter experts to prepare programs that are based on the specific needs of MNS. (Dr. Simon, Alexis "A Conversation with Dr. Simon Alexis." Interview. Conducted by Ms. Keisha Lee Hercules, 16 Jan.2023).

Another salient point is that different divisions within the Ministry, such as the TTPS, have been accredited by the Accreditation Council of Trinidad and Tobago, allowing the TTPS to move beyond giving out certificates of participation to being able to hand out certificates and diplomas to its participants. Within the Ministry, there are now in-house subjective matter experts due to the evolution of knowledge and advancement in technology, allowing for more virtual learning and creating a more blended training experience. There are numerous Training

and Developmental programs implemented by the MNS that they are involved in throughout the Ministry and its different arms. (Dr. Simon, Alexis "A Conversation with Dr. Simon Alexis." Interview conducted by Ms. Keisha Lee Hercules, 16 Jan.2023).

Figure 2: Vision, Mission, Mandate and Core Values of the MNS

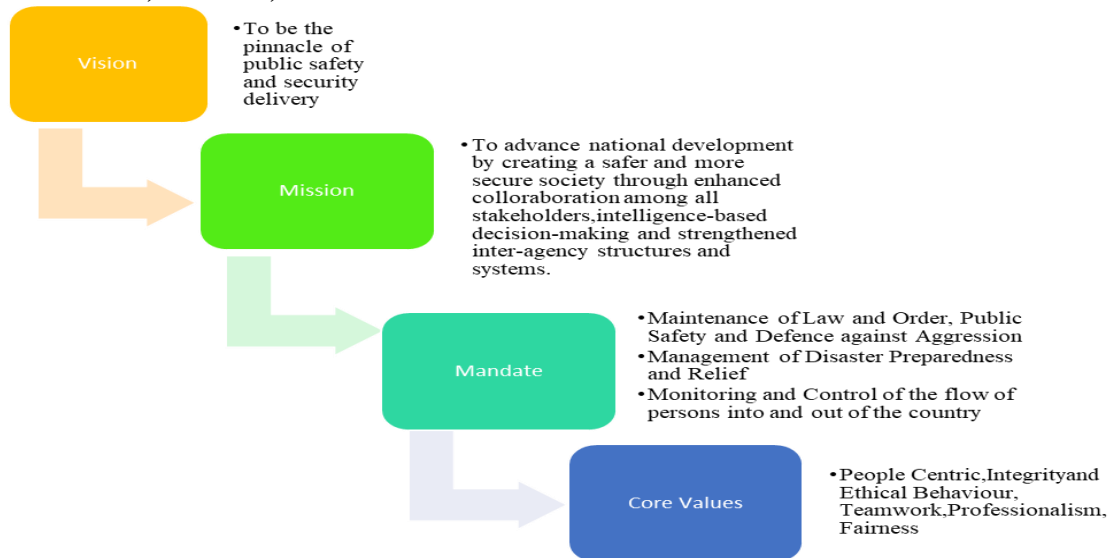


Figure 2 above illustrates the MNS's Vision, Mission, Mandate and Core Values that form the basis for the Ministry's strategic plan. It serves as the guiding principle by which all the other subsidiaries of the Ministry use as the basis to formulate their strategic plan that must align with the overall goal of the Ministry as a whole unit.

This study will focus primarily on the GAD, particularly the HRU of the MNS. The Ministry previously developed a 24-month Operational/ Roadmap Plan as stated in its Strategic Plan 2018-2023 (MNS 2018). This plan included RACI, Responsibility, Accountability, Consulted and Informed to measure performance and goals through a monitoring team SPINE. (MNS 2018) reported that it involved using the Odyssey Strategic Thinking Model to understand better what existed within the GAD of the MNS.

As reported (MNS Strategic Plan 2018), after evaluation of the internal environment of the Ministry, it was discovered that there was a lack of Communication, which affected the daily functions of the Ministry. Further, the Strategic Plan stated that the inefficiencies lacking within the Ministry are due to poor information dissemination among staff as well as poor Human Resource Planning, which inhibits the daily roles and responsibilities of the Ministry's mandate. The recruitment of persons depends on the budgeting and availability of funds, which leads to a need for more human resources. Another finding suggested that it is mandated by outdated laws, which are guided by the Civil Service Act (Chapter 23:01 December 31, 2016), causing inefficiency in selecting a suitable replacement to fill vacancies and, lastly, a knowledgeable and capable workforce. The Ministry requires bilingual staff, keeping and sustaining a large pool of trained and experienced persons.

Currently, within the Ministry, as the SHRO (2023) reported, "there has been growth and improvements around technology and recruitment of staff. The development of Performance Management Competency metrics in evaluating staff has not been implemented. The effect of the PMS on the Ministry is directed at changing the current environment and culture of its established staff. While it aims at ensuring continuous improvement and changing cultural stereotypes, there is still resilience in changing the culture and behaviour of the MNS staff." The Ministry implements the strategic plan to achieve its Vision and Mission. Stakeholder Partnership and Collaboration, Governance, Capacity, Capability Resourcing and Optimization. In evaluating the strategic plan for 2018-2023, the MNS intended to enable the following outcomes:

- To become efficient with the use of available resources;
- To include the global network in fulfilling the mandate; and
- To develop and improve cross governmental and divisional processes and become one.

Training and Development Strategies of the GAD of the MNS

As indicated by the SHRO (Ms Maharaj), "all classes of faculty (regular citizen, paramilitary, and military) require some type of Preparing which can be embraced at the nearby, provincial, and global levels with the above neighborhood or unfamiliar foundations/associations. There is an arrangement of in-house Preparing where informed authorities are welcome to prepare the staff at ordinary stretches. These specialists are enlisted either from outside foundations/consultancy administrations or from the expert framework of the Service. The projects are led in the vicinity of the Service of Preparing focuses. The nature and exercises of the Service once in a while require specific preparation programs that must be gained from local and worldwide foundations and associations. Accordingly, staff are sent to another country for preparing when important."

The MNS implements training and development programmes to ensure that all staff in each functional area can develop. These are divided into the following seven categories:

Table 1: Categories of Training and Development

Category	Objectives	Training Intervention
Technical training	To improve performance	OJT; practical sessions, salary administration; auditing and accounting procedures; process mapping; computer literacy
Quality training	To improve process & delivery of products	customer service, knowledge management; protocol; mediation
Skills training	To develop creative thinking skills, communication, and other skills essential to long term survival of the organization.	presentation; public speaking; language; negotiation; communication;

Professional training	For succession planning so that employees can obtain professional qualification to effectively lead the organization.	project management; IT; security intelligence; security operations
Functional training	To improve operational systems in functional areas.	OJT; diplomas; degrees; certificates
Team-bonding activity	To develop leadership and teamwork	retreats; team building activities
Managerial training	To learn from best practices in the industry; to widen knowledge and networking	seminars; workshops on management; leadership training
Managerial training	To learn from best practices in the industry; to widen knowledge and networking	seminars; workshops on management; leadership training

(Email received via Ms. Melissa Maharaj, SHRO 2023)

General Administration Department

The GAD, more commonly referred to as "Head Office" (Appendix I), is the arm of the MNS that ensures that the respective divisions implement the Government policies and programmes. The HRM in the Ministry was developed under Cabinet Minute 600 of 1998 and is a division under the General Administrative Arm. Personnel Administration still guides HR practices through the civil service regulations without an HRM Policy. The General Administrative Department is spearheaded by the PS (Accounting Officer) of the MNS. It is supported by another PS responsible for HR, three (3) DPSs and a cadre of senior managers, administrative heads, and technical officers, who all work together to fulfil the Ministry's mandate. The MNS has several divisions, and the HRU looks after the HRM needs of the GAD of the HRU.

The issue emerges that the public service must meet rising public expectations by conveying faster results by providing public officers with the necessary tools and approaches to improve service delivery whilst creating public value. The importance of Training is a long-debated topic in public and private sector forums.

However, the most notable potential benefits of Training include improved organisational activities and enhanced job performance in a work environment. Recently, the GoRTT has embarked on digitalising its services and a training needs assessment in collaboration with the Ministry of Public Administration (MPA). This assessment is focused on the individual needs of each Ministry. However, it was noted that there were few measures of Return on Investments (ROI). Thus, the question of how the Ministry can effectively measure the ROI on Training and Development provided remains. A discussion with the PS led to the question of how the Ministry can effectively measure ROI on Training and Development provided, as alluded to by the PS. To this effect, it can be assumed that it can be further stated that there may be a lack of

accountability when it comes to determining the level of success that this Training has on the GAD within MNS and, by extension, how they can be augmented to be better utilised in making the Ministry a more effective and efficient one.

STRATEGIC ANALYSIS AND ASSESSMENT

Current Assessment of the MNS and HRU

The current evaluation of the GAD, particularly the HRU of the MNS, will assess the quality and shortcomings while gauging the viability of its operations as it relates to the ROI of Training and Development. The purpose of implementing the training and development strategies and the various training categories is to ensure the development of all staff within each area. The McKinsey 7s Model was used to establish the link between the Ministry's objectives and how effectiveness is achieved within the organisation through the seven elements. Now, we examine the situational analysis of the Ministry as it relates to the HRD in which we would be utilising the PESTLE and SWOT analysis to determine the opportunities and challenges within the environment of the GAD, both externally and internally, of the MNS.

EXTERNAL ENVIRONMENT THE MNS (PESTLE ANALYSIS)

The PESTLE Analysis is being utilized to give a more comprehensive look at the external environment of the GAD, particularly the HRU of the MNS. We would be taking a closer look at the political, economic, social, technological, legal, and environmental aspects and the impacts they have on the Ministry and by extension the HRU.

PESTLE Analysis of the GAD, MNS

The Pestle Analysis will evaluate the external environment that exist within the MNS, particularly the GAD, HRU.

Figure 3: PESTLE Analysis of the GAD, MNS

Political	Economic	Social	Technological	Legal	Environmental
<ul style="list-style-type: none"> • Government Currently governs the Ministry and the HR Division is responsible for maintaining compliance with Governments Regulation and Legislation 	<ul style="list-style-type: none"> • These operations are sustain from government subventions and budgetary allocations 	<ul style="list-style-type: none"> • Work Life Balance • Communication with Public 	<ul style="list-style-type: none"> • Emerging Technology • Technology Transfer • Technology upgrade • The impact of technology on crime and crime on Technology 	<ul style="list-style-type: none"> • Policies • Legislation 	<ul style="list-style-type: none"> • Co-operate Culture • Management Style • Transfer of Knowledge

Political: One of the significant points to note is that although the MNS is large and complex, it does not operate independently but is controlled by the GoRTT. The impact that this has on the Ministry is that it must align its goals and objectives with that of the national vision and mission, where "solving and preventing crime" was identified as one of the significant challenges faced by Trinidad and Tobago, as stated in the vision 2030 (2018). This problem falls directly under the purview of the MNS, whose primary responsibility is ensuring and maintaining the security and safety of the country and its citizenry. This also affects the HRU of the Ministry as it is responsible for maintaining compliance with Government regulations and legislations as an arm of the Government body. The job of managing the HR functions and the General Administration of the MNS, including its Planning Unit, Employee Relations Unit and Training and Development Unit, has to all fall within the parameters of the law and directive of the Government.

Economic: Because the Ministry is not an independent body, it relies solely on the Government for its economic provisions for the operations of the Ministry and all its subsidiaries. As a result, any changes in the economic external environment will directly and significantly impact the Ministry and how effectively and efficiently it will be able to carry out its mandates. The Ministry and, by extension, the HRU rely on government subventions and budgetary allocations to perform their functions. The Ministry needs the finances to pay salaries, purchase tools and equipment and even ensure disaster preparedness and relief. The HRU relies on the finances to facilitate contractual employment and to oversee the development and implementation of Training and developmental programs within and throughout the MNS.

Social: These are the social trends and cultural factors that can help an organisation to adapt their company's practices to current norms. One such social factor influencing the country's cultural and social norms is the recent surge in the number of Spanish immigrants entering the country, both legally and illegally. The increase in criminal activities, the presentation of language barriers, and changes in social norms and customs have all directly impacted the MNS. This would affect how the Ministry and the different divisions that fall under the umbrella of the Ministry communicate with the public. The HRU is affected as they are tasked with finding solutions to these issues, such as providing programs that teach Spanish as a second language to break down the communication barrier. Other social matters would directly impact the MNS, such as human trafficking, which is seen as a growing problem in the country. The increase in social problems like domestic violence, child abuse, and gang-related activities would have direct and significant effects on the Ministry but does not directly affect the operations of the Ministry's GAD, HRU.

Technological: From year to year, we are impacted by the constant innovation and developmental changes that occur in technology. The way we send and receive information to the advances in the type of technological devices have directly impacted the level of efficiency and effectiveness of the GAD, particularly the HRU of the MNS. As stated by the MoF, Mr Colm Imbert, in the presentation of the Government's 2023 budget, "The Government intends to have new and improved technology throughout the national security services that will improve decision-making and productivity within the service. These technological improvements will facilitate the Ministry in meeting the existing and new operational needs." This impacts the HR Department by ensuring that all personnel are professionally trained to use the devices when acquired to ensure they are used effectively and efficiently. They would need to assess the skills of the various staff and determine where Training is needed, and design/source programs and have them implemented.

Legal: Due to the responsibility and the primary function of the Ministry, the components of the external legal environment that will directly impact the MNS are the policies, procedures, and legislation of the country. The country's legislation sets the parameters of the operations of the MNS and all its subsidiaries. The HRU works with the Ministry and the HR units of all its subsidiaries to ensure consistency within the operations of all the different divisions. This could directly affect the HRU as it would set the parameters for the essential functions of the Ministry and, by extension, the HRU of all its subsidiaries.

INTERNAL ENVIRONMENT OF THE GAD, MNS (SWOT ANALYSIS)

The study will identify the existing internal environment of the GAD and how it currently functions with the use of the SWOT Analysis.

Figure 4: SWOT Analysis of the GAD, MNS**(Strategic Plan 2023 MNS)**

Strength: The MNS holds an existing Strategic Plan that is guiding its framework for the implementation of structural changes. Many private institutions would have to embark on the entire process of designing a strategic plan that would best serve the overall goals and objectives of the organization. The Ministry is comprised of nine (9) divisions and many other units/ agencies who all possess their own resources, cultures, and systems, that all fall under its purview and are expected to operate with strategic cohesion and synergy.

When it comes to the strength of the Ministry, not only is its operations funded by the GoRTT, but it is one of the better funded ministries as evident by the presentation of the yearly national budget. Having a significant portion of the budgeted funds allocated to the Ministry is instrumental in carrying out its day-to-day functions.

Being one of the largest Ministry in the GoRTT, it is understood that it has a large work force and by extension a large knowledge pool. The MNS has been able to not only attract but also retain and develop the skills, knowledge, and expertise of a broad spectrum of persons, who continue to work towards responding effectively and efficiently to urgent and critical situations. (Security, 2018) In this regard, the HRU would be responsible for the recruitment, retention, and development of the Ministry's Human Capital.

Weakness: While the Ministry has one of the largest contingents of workers, the issue of the optimization and utilization of its staff within and throughout the Ministry remains a challenge. It may be affected by the need for improvements within the Ministry's Human Resource practices, including the recruitment process, communication, and training and promotion policies. As within most public sectors they depend solely on budgetary allocations as their source of funding to implement training and development and manage the operations of their agencies. The question here is whether the resources allocated to the Ministry are being allocated to where they are needed to produce maximum optimization to enhance the effectiveness and efficiency of the MNS. There is much room for improvement in the HRU, especially when it comes to ensuring the cohesiveness and optimization of the workforce of the MNS. This also considers that while each unit of the Ministry has its own HRU, they still must ensure that they align with one another and, by extension, the Ministry's goals.

Opportunities: Presently, the Ministry recognizes that there is room for improvement and further development of the HR practices within the MNS. Before the recruitment process, staff roles and job specifications should be more clearly aligned with policy requirements to establish a more significant optimization of employee utilization. Next on the list is better career development and advancement opportunities, as well as more attractive rewards, training and promotion policies in place that would significantly motivate staff performance and effectiveness.

Apart from the HR practices, another significant aspect that presents itself as an opportunity that can be explored to the benefit of the Ministry is to investigate the availability of generating donor funding for training and other developmental programs within the Ministry. This would help alleviate the dependency on only Governmental subventions to initiate and implement developmental programs that are needed to enhance further the Ministry's efficiency and effectiveness in meeting the demands of its portfolio. There is a need to reform some of the processes and procedures currently in place that would allow the HRU to meet the needs of the personnel of the MNS, enhancing the effectiveness and efficiency of the HRU.

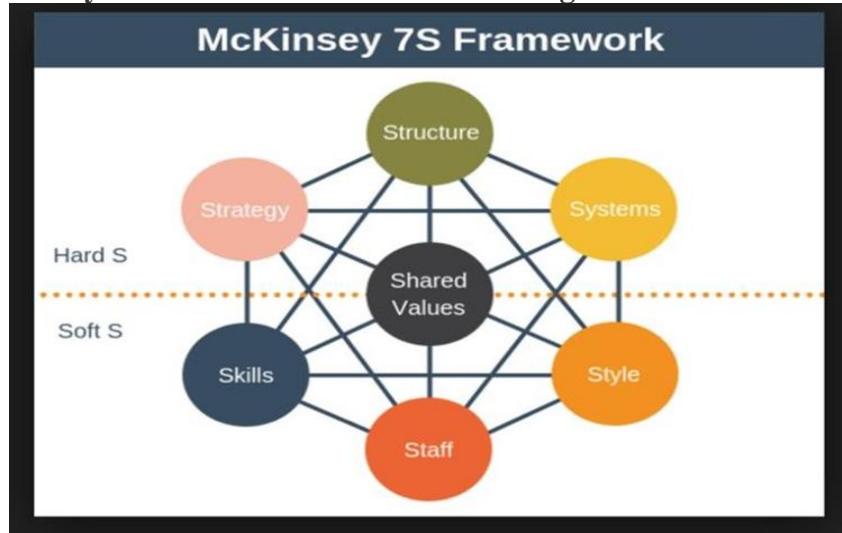
Threats: As with any organization, some internal and external elements can be disastrous to its overall function. Here are some of the internal threats identified, including but not limited to economic stability and technological application in and throughout the Ministry. With the current fiscal status of the country taking a downturn because of the global pandemic coupled with the conflict in Eastern Europe, it has affected not only Trinidad and Tobago but the rest of the world. This resulted in many cutbacks on government subventions and consolidated funding.

Constant advancement and development in Information Technology challenge any government agency to keep up with the latest developments. Even with all the recent technology being utilized in the rest of the world, many government agencies still operate manually. Many Ministries need more IT applications, materials, equipment, and expertise to function more effectively and efficiently. There is a need to upgrade technological equipment and resources and the professionals with the knowledge and skills necessary to operate them. Now that we have a better understanding of the Internal and External Environment of the operational status of the GAD, MNS, we will explore the McKinsey 7s Model.

CURRENT ISSUES OF THE GAD, MNS USING THE McKinsey 7s MODEL

The McKinsey 7s Model was utilized to assess the MNS authoritative plan and the viability of its inner system. It was created in 1970 by McKinsey and Co. as a conceptualizing system to analyze hierarchical discomforts and form improvement programs (Channon 2015). The McKinsey 7s Model (Channon 2015) detailed that the methodology represented a work to address the significant misery leaders had at the time about how to successfully deal with general administration issues connecting with key and hierarchical factors. The Model goes past the hackneyed, distorted thought that "structure follows methodology" since it likewise interfaces technique to the next five section

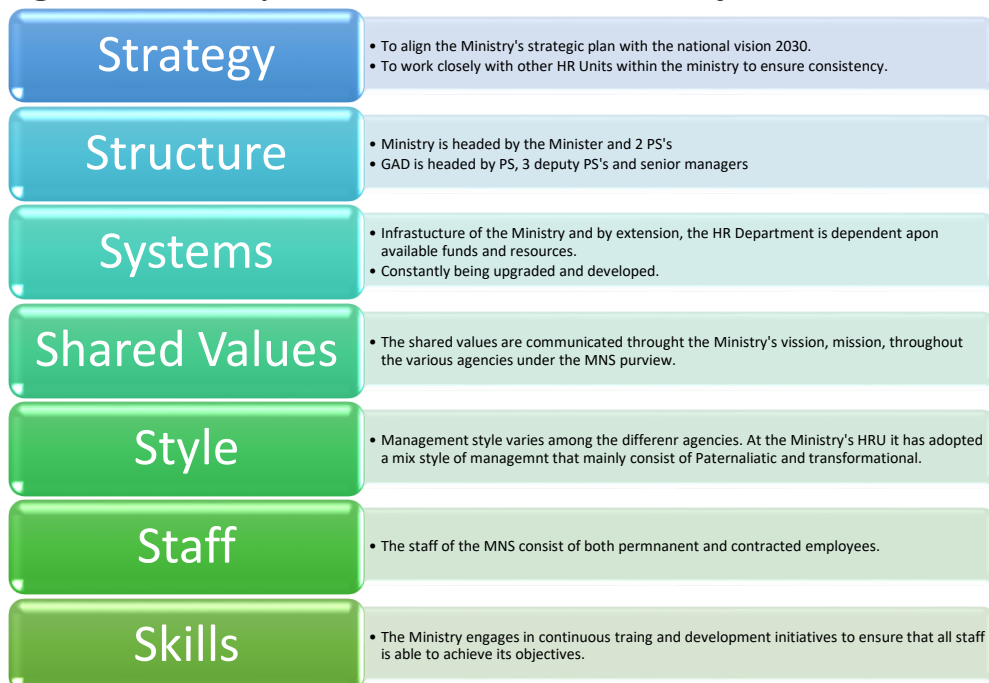
Figure 5: McKinsey's 7s Model: Hard and Soft Strategies



(Ravanfar 2015, Analyzing Organizational Structure Based on 7s Model)

Within the current establishment of the GAD, MNS there are several areas found using the McKinsey 7s Model as outlined below:

Figure 6: McKinsey 7s Model with GAD, MNS's Objectives



(Strategic Plan 2023 MNS)

Using the McKinsey's 7's Model to analysis to functions of the GAD, HRU as it relates to the return on interest (ROI) on training and development.

Strategy: The Ministry's strategy is centred around its vision, mission, mandate, and core values. The vision, mission, mandate, and core values statement of the strategic plan is highly critical to the overall performance of the Ministry and, by extension, the HRU and all its assigned units in the GAD.

The Vision Statement:

“to be at the pinnacle of public safety and security delivery.”

Mission Statement:

“to advance national development by creating a safer and more secure society through enhanced collaboration among all stakeholders, intelligence-based decision-making and strengthened inter-agency structures and systems.”

Mandate:

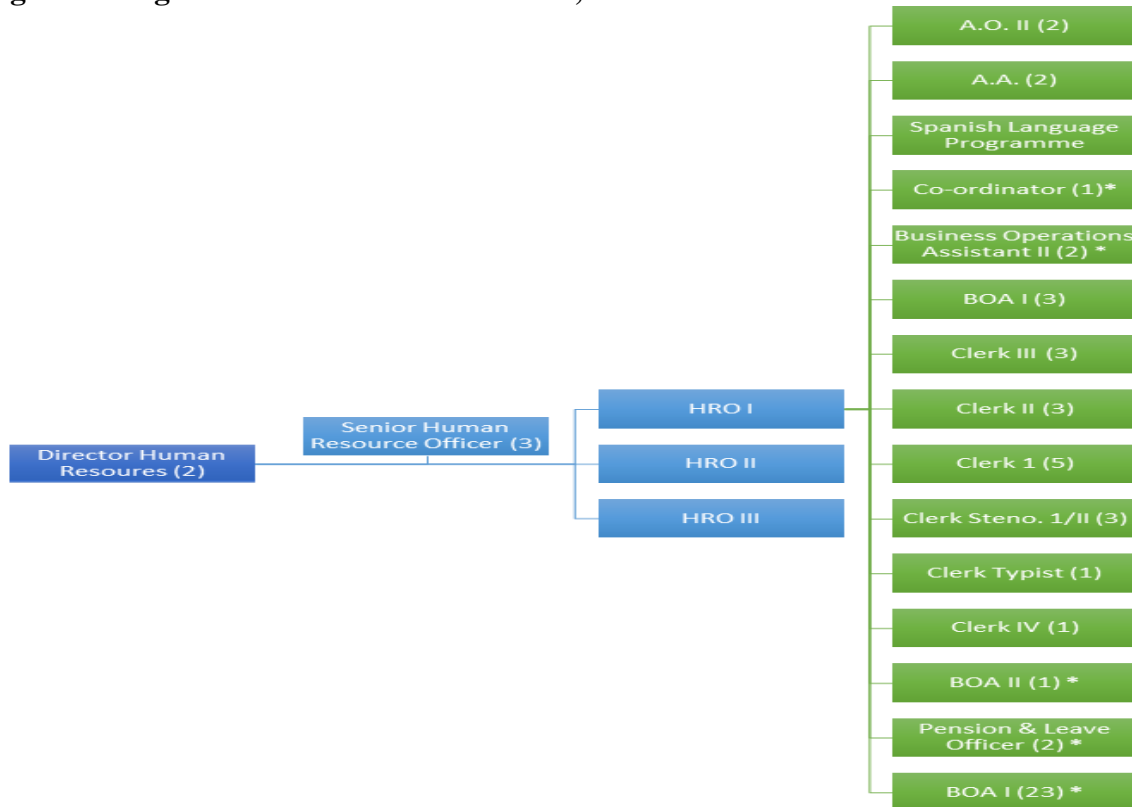
- i. *“Maintenance of Law and Order, Public Safety and Defence against Aggression”*
- ii. *Management of Disaster Preparedness and Relief*
- iii. *Monitoring and Control of the flow of persons into and out of the country*

Core Values:

People Centric, Integrity and Ethical Behaviour, Teamwork, Professionalism, Fairness
(MNS Strategic Plan 2019)

This is important to ensure that even within the operations of each division, there is synthesis as each unit's operations align with that of the Governmental strategic direction. Even the HRU shares the same vision, mission, and core values as the MNS, which sets the foundation for the work coming out of the HRU. The question is whether the department would work more efficiently if guided by its strategic plan that aligns with the Ministry's overall goal. **Structure:** The HRU is overseen by two Human Resource Directors responsible for the department's operations. Under their charge are three SHROs, one HRO III, two HRO II, one HRO I, two Assistant Officer II and two Administrative Assistants. There is also a Spanish Language Programme Co-ordinator, two Business Operations Assistant II, three Business Operations Assistant I, three Clerk III, three Clerk II, five Clerk I, three Clerk Stenographers I/II, one Clerk Typist I, one Clerk IV, one Business Operations Assistant II, two Pension and Leave Officers and twenty-three Business Officer Assistant I. This comprises sixty-one employees that comprise the GAD, particularly the HRU of the MNS. A department that, while it has a good complement of staff working to the best of their ability to carry out the functions of the department, the workload requires additional staff to meet the needs of the department more effectively and efficiently. Below is an illustration of the HRU of GAD taken from the Organizational Chart of GAD, MNS, which can be found as an attachment in the appendix of this document.

Figure 7: Organizational Structure of HRU, GAD



System: Within the HRU, many processes, procedures and IT systems are utilized to not only carry out the department's daily functions but also to carry out training and other developmental projects. However, the GAD of MNS is under the remit of the public service, and as such, most of its procedures that pertain mainly to recruitment are set out by the Service Commission, which is responsible for the appointment, promotion, transfer, and even disciplining of staff within the public service. The Personnel Department maintains the classification of civil servants, handles any grievances and remuneration and establishes the terms and conditions of employment. Other processes include the production of periodic reports, which are done every quarter to test the officer's performance, and it also helps to determine the training needs of each officer. An IRIS system is utilized to manage the human resources aspect of the Ministry's personnel. The Public Service Performance Annual report is instrumental in the promotional process of staff.

Shared Values: The shared values that drive the hard and soft elements of McKinsey's 7s model are the same as identified by the MNS. These include professionalism, integrity and ethical behaviour, teamwork, fairness, and people-centric. Professionalism speaks to how members of the organization are expected to conduct themselves, in their actions and attitude at every level, such as leadership level, management/supervisory level and operational/frontline level. Members of the MNS are expected to consistently embody the code of conduct while performing their duties demonstrating the highest integrity and ethical

behaviour. Teamwork is essential as it sets the standards by which each unity is expected to illustrate by collaborating. All members are expected to treat all persons equally, which speaks to fairness. People-centric refers to the people-first attitude in which members of the MNS are expected to respond to their colleagues and the public. These values are working for the Ministry as there have been considerable improvements in the public's reception of the MNS civil servants over the years.

Style: The leadership style may vary understandably among the different divisions. The Ministry's HRU has adopted a mixed style of management that consists of transformational, transitional, and situational leadership. The type of leadership style utilized would depend mainly on the individuals and, to an extent, the management level. At the higher levers, such as with the MNS and the PS and DPSs, you would find they demonstrate a transformational leadership style, where staff are encouraged to be innovative and creative in an overall enhancement of the company's vision, mission, mandate, and core values and to find innovative solutions to old/existing problems. In some situations, a transitional leadership style is more common among mid-level management, such as the SHRO. This type of leadership conveys the idea that change is constant, and thus, the aim is to get individuals to transition from one state to the next. The most predominant leadership style is situational, which means that one's leadership style can change to suit each unique situation or meet the team's developmental needs.

Staff: Within the ministry's GAD, there is a complement of both permanent and contracted employees. As well as a mix of the skills, knowledge, and competencies levels at the various levels in the department. The specific job description of each position or category would determine the skills of everyone. The job description would tell you precisely the expected duties and the required skills, knowledge, and competencies that everyone would need for their respective positions. The job descriptions are determined by the Chief Personnel Department, which can sometimes mean that the positions tend to be generic in most instances.

Skills: When it comes to the actual skills and competencies of the HRU's staff, they range from highly skilled to unskilled. The top management, such as the Director of HR and the SHRO, are highly skilled. The skilled employees would be the HRO I, II and III, leaving the clerical staff to make up the operational-level employees, who would possess the basic administrative skills needed to run the daily operations of the Department. The job description determines the skills, courtesy of the Personnel Department. The needs of the Department also require a range of skill levels to meet its needs. As evident by the structure of the Department, there is a heavier number of operational staff as opposed to the more technical and specialized offices. This shows an imbalance in the work dynamics at the top as opposed to the operational on the lower end.

RESOURCE BASED VIEW OF THE GAD, MNS (VRIO)

On establishing the strategic issues related to the organization, we now look at the resources within the Ministry and how they are applied effectively and efficiently in reaching its Vision, Mission, Mandate and Core Values. To do so, we will also look at the ministry's resources through the VRIO framework to determine whether it can be a sustainable competitive advantage for the GAD.

Table 2: Resource Based View of the GAD (VRIO)

Resources	V (Valuable)	R (Rare)	I (Imitability)	O (Organization)
HR Optimization				
Building the Capacity of the key MNS Units/ Division	Yes	No	No	No
Empowerment of the MNS Leaders to be change Agents in Culture	No	No	Yes	No
Improve HRD	Yes	No	No	No
Acquiring Cabinet Approvals	No	No	No	Yes
Case Management and Process Systems	Yes	No	No	No
HR Responsiveness	No	No	No	No
Monitoring and Evaluation	Yes	No	Yes	No
Improve Stakeholder System	Yes	No	Yes	No
ICT and Technology Optimization				
Improve Database capability.	Yes	No	Yes	No
Improve Communication infrastructure.	No	No	No	Yes

Increase the use if ICT tools	Yes	No	No	No
Structural and Policy Re-engineering	Yes	No	No	No
Infrastructure Improve the infrastructural key Units and Divisions	Yes	No	No	Yes
Building renovations	Yes	No	No	No
Safe work environment	Yes	No	No	No
Financial Source of Funding through Government Subventions and budgetary allocations	Yes	No	Yes	Yes

The Factors that impact the Internal Analysis were considered in determining the resources using the VRIO Framework and the McKinsey 7s Model. In determining the ministry’s ability to gain and sustain a cultural change, its resources and capabilities need to interact with each other in such a way as to create a unique core competency. Presently, the ministry has resource immobility. That is, it will incur a higher cost for the ministry to develop its resources of ICT Technology, HR optimization and cultural change.

STAKEHOLDER ANALYSIS OF THE GAD, MNS

The Stakeholder Analysis depicts the current existing structure within the ministry, its roles, responsibilities, and its impact on this research.

Table 3: Stakeholder Analysis of the GAD, MNS

Stakeholder/ Stakeholder Group	Permanent Secretary	Executive Management	Human Resource Officers	Clerical	Secretarial
Impact Level	High Authorizes the evaluation of the project	Medium	Medium	Low	Low
Level of Support	High	Medium	Medium	Low	Low
Actions to address the Stakeholder Group	Interview 15 mins	Survey 3 mins	Survey 3 mins	Survey 3 mins	Survey 3 mins
Investments	Decision Making	Work with staff to participate.	Work with staff to participate.	Attraction to keep staff.	Attraction to keep staff.

	Ensuring support for the project				
How can the stakeholder benefit from the project from Engagement?	Increase funding of relevant training methods and the needs of staff.	Increase awareness of staff morale Understanding behaviour and attitudes towards work	Develop the necessary metrics needed for measuring individuals. Increase staff morale and work ethics.	Improved commitment and responsiveness of the public needs Better environment for staff engagement and productivity	Improved commitment and responsiveness of the public needs Better environment for staff engagement and productivity
	Prioritizes the needs of Human Capital	Increase communication methods. Improved policies	Training assessment needs Sustaining developmental goals of the human resources		
	Development needs	Increase staff satisfaction.	Outcomes of returns of training		

The MNS comprises Internal and External Stakeholder groups. The Internal Stakeholder group comprises cross-sectional groups of employees from each division. Table 3 above illustrates the context in which the General Administration as the key stakeholder is prioritized. The stakeholders of this study will be positively impacted in better understanding the behaviours and attitudes of employees and mechanisms to improve workplace productivity. Staff engagement level is essential in understanding this study's core focus and development.

The key stakeholders of this project are the internal staff of the GAD of the MNS. With the support of the PS, the implementation and participation of all department heads and staff can be ensured. Senior management and HR approval is critical for staff participation and acceptance of the benefits of this survey. Senior management and human resource managers will create an environment encouraging employee participation and engagement.

In this first phase, there was no analysis of the stakeholders' influence. During the project's execution, it is expected that this will become clearer. The information used in this study would have originated more from preliminary data collection from respondents who are employees of the MNS and those who are the recipients of the said training and development initiatives. The employees are from the different operational levels within the Ministry and would be surveyed to find two primary responses, i.e., the effectiveness and efficiency of the training to the employees who are the ones receiving the training and how this is measured.

SUMMARY OF THE ISSUES WITHIN GAD, MNS

The summary of issues within the GAD would utilize the McKinsey 7s Model based on the various levels of strategy, as stated by Strickland Gamble (must properly cite them). The various levels of Strategies, which are as follows: Level I- Cooperate, Level Business, Level III- Functional Level and Level IV- Operational Level, are used in developing the matrix of issues within the MNS.

Table 4: Summary of issues Matrix within the GAD MNS

McKinsey 7s Model	Issues	Levels of Strategies			
		I	II	III	IV
Strategy	<ul style="list-style-type: none"> Staff turnover is higher due to lack of succession planning 		•	•	
Structure	<ul style="list-style-type: none"> Staff are not functioning at one area; they are constantly rotated due to Civil service regulation of acting arrangements. Process and procedures No systems to follow to measure ROI of Training Training needs assessment are done within the FY 		• • •	• • •	
Systems	<ul style="list-style-type: none"> No clearly defined duties and roles of operations Staff often perform additional duties. The need to provide career development opportunities. Reward systems are not implemented. Imbalance in access to HR benefits vis a vis personnel influence Regular reports by the Monitoring and Evaluation Units are not sustained. 			• • • •	
Skills	<ul style="list-style-type: none"> Lack of transfer of knowledge gained from training and experience. 			• •	

	<ul style="list-style-type: none"> • Poor Performance Management Standards and Metrics • Lack of trained persons to implement the Ministry's strategy. • Reward systems are not implemented. • Training needs assessment was recently completed and implement in the budget year 2022/2023 			•	
Staff	<ul style="list-style-type: none"> • The need for qualified staff in the field of ICT to implement the resources. • Lack of review of Performance standards • Lack of Training and Experience in the respective arears 			•	
Style	<ul style="list-style-type: none"> • The training offered is not evaluated by trainers. • Lack of regular needs assessment of staff shortcomings and improved • Train the trainer 			•	
Shared Values	<ul style="list-style-type: none"> • Poor Communication among staff Lack of motivation and morale 		•	•	•

STATEMENT OF THE PROBLEM

The issues highlighted through the situational analysis done thus far will be used to inform the problem statement. Within the public sector, training and development are the least evaluated areas. While the public sector has utilized cost-benefit analysis to examine the feasibility of public initiatives, the ROI for training evaluation is seen as less applicable in government organizations. There has been little research on how these frameworks affect public service organizations. One example is (Yadapadithaya 2001), which explored current difficulties in the Indian corporate sector with a focus on assessing and measuring training program efficiency. The Confederation of Indian Industry, which represented 500 public and private manufacturing workers, was one of the 407 organizations to whom he gave the questionnaire. The results showed that 252 out of the 407 surveys had responses and that the commercial sector, the public sector, and all multinational cooperatives all rate training at about 86 per cent each. Many businesses seek ROI since they can no longer accept employees' tangible returns.

The MNS was allotted a budget for FY 21/22 of \$5.664 billion, while in FY 20/21, they received a budgetary allocation of \$5.227 billion for expenditure. There is a need to understand the extent to which public industry organizations evaluate their programmes. Evidence of the Phillips technique's five levels of the analysis of public industry organizations is found in the materials and case studies, texts, and articles (Fitzgerald and Hammond 1999) and (Chmielowski and Phillips 2002). Empirical research focusing on training analysis levels has not yet been found.

The strategies levels I-IV identified the issues found with the MNS related to the McKinsey 7s Model. In this case, level I refers to the Ministerial tier, level II refers to the Permanent Secretary, level III refers to the Senior Managers/ Directors, and lastly, level IV identifies the clerical staff. Now, we can identify the level of strategy that the issues are arising from the situational analysis in which the Ministry operates, particularly the HRU. This will inform the problem statement.

PROBLEM STATEMENT

The MNS was awarded \$5.227 billion in FY 20/21 from the funds the government had allocated to the public sector to improve personnel Training and Development, making it critical to not only have a comprehensive understanding of the ministry's current and situational position but also to know where the issues (if any) may lie. As such, this study will investigate why public sector organizations, specifically the GAD in the ministry, need to reassess their training programs to maximize their effectiveness and efficiency. As a result, HRU will be the focus of this study to determine how to increase the effectiveness and efficiency of the ROI on Training and Development within the MNS.

RESEARCH QUESTION

What strategies can the MNS implore to measure its ROI in Training and Development to be able to improve on its effectiveness and efficiency within the GAD.

SUPPLEMENTAL QUESTIONS

- How does the MNS evaluate ROI of Training and Development effectiveness?
- How does the MNS measures its level of training effectiveness?
- Should organizational outcomes be considered in determining a training program's success?
- Is the current evaluation method a good tool for measuring effectiveness?
- How does the effectiveness of training and development impact the organization's strategic goals?

AIM OF THIS STUDY

To improve the Return on Investment in training and development within the GAD of the MNS.

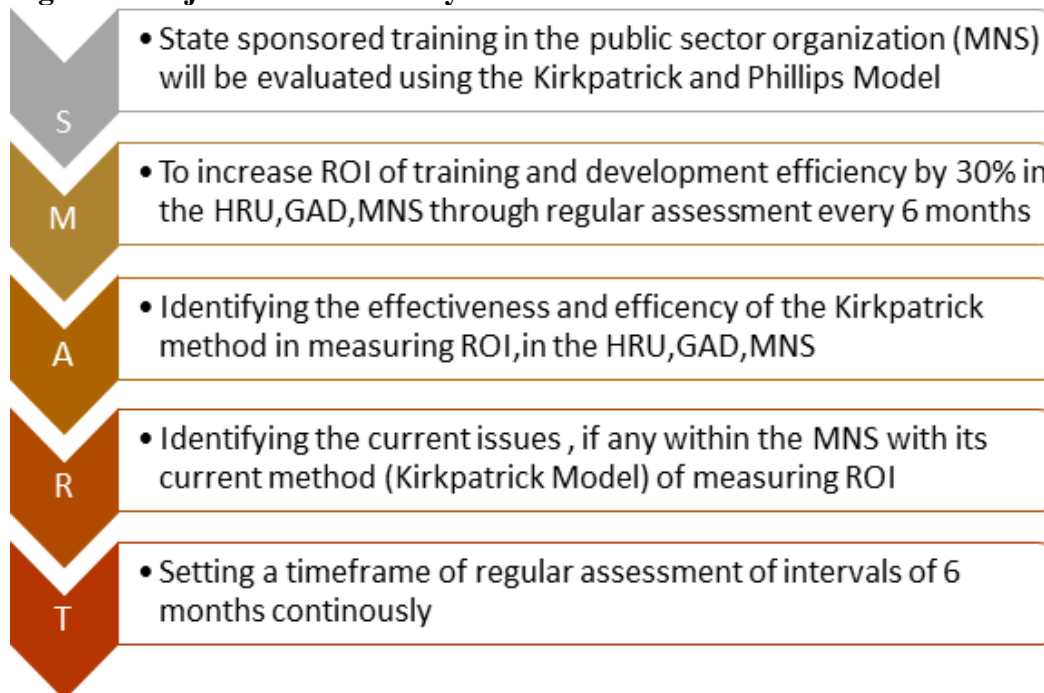
GOAL OF THE STUDY (SMART Principles)

The goal of this research will be to determine the MNS effectiveness and efficiency of the ROI of Training and Development using the SMART Principles (Specific, Measurable, Attainable, Realistic and Time-based Approach).

OBJECTIVES OF THE STUDY

The SMART principles will establish the parameters of achieving this. The objectives established below will be set out to evaluate the MNS practices in measuring the ROI of Training and Development.

Figure 8: Objectives of the Study



THE PURPOSE AND SCOPE OF THIS STUDY

This study within the GAD will evaluate the practices in public sector organizations using the Kirkpatrick Model and Phillips ROI Model. The research will evaluate the reaction, learning, application, impact, and ROI levels. This study helps guide the framework of training evaluations and the viable solutions to overcome the shortcomings and provides supporting evidence of its current practices. As such, this study intends to assess the HRU within the MNS on its effectiveness of ROI from training. In implementing the findings from this study, the Ministry will better understand its performance monitoring systems and its effectiveness in assessing training in the HRU. Evaluating the Ministry will allow a better understanding of staff and management in measuring their training effectiveness and value for money. Ensuring

the Ministry's vision, mission, mandate, and core values are kept in management's minds and communicated by executing the method best suited to sustain effectiveness.

LITERATURE REVIEW

In this study, the literature review will critically examine the effectiveness and efficiency of the return on investment of training and development and its implications on the General Administrative Department, MNS. (Phillips 2012), reported that organizations worldwide are concerned about the accountability of training and are exploring ways and techniques of measuring the training results. Additionally, (Phillips 2012) reported that each year, the William and Mary Business Review focuses on an important issue facing corporate executives to stimulate intellectual and practical debate over prevailing management issues. According to the special issue editor, "A company's training investment is mostly to pay off when training is held accountable for results."

The public expects but demands greater responsibility for public dollars in a climate of limited resources and deficits. This desire has sparked a trend in the public sector to import private-sector business techniques to enhance accountability-oriented analysis. Increased focus on ROI analysis in public sector organizations is one example. Since most governmental organizations do not create the profit required for ROI calculation in the same manner as in the private sector, developing and applying ROI analysis in the public sector is difficult (Phillips 2004). The approach required is to use ROI analysis in the public sector as developed in this study and would apply to the General Administration Department, HRU of the MNS.

THEORETICAL AND CONCEPTUAL FRAMEWORK

The Kirkpatrick Model will serve as the theoretical framework to guide the discussions on the literature review sections. Whereas the Phillips ROI Model will be considered as the conceptual framework in which this study will be established.

Training Evaluation Models and Processes

The Public Sector is required to implore training evaluation methods and processes through any of the following methods: Kirkpatrick (1987), Brinkerhoff (1987), Bushell (1990), and Galvin (1983) (Cabinet minute 253). Evaluation involves the descriptive and judgmental collection of information about the cost/benefit ratio, modification, appropriateness, and database establishment.

Brinkerhoff's (1987) Learning Evaluation Theory focuses on quantitative analysis; Bushell's (1990), a modification of the Kirkpatrick model, includes evaluation of training from development through the delivery and impact, and Galvin (1983) uses conceptualizes mapping as its framework. However, the chosen method of evaluation by the MNS is that of the Kirkpatrick Model, which has proven to be more efficient and effective in evaluating training and development within the GAD (Phillips, 2023).

Within the Public Sector of Trinidad and Tobago's Ministries / Departments, measuring the returns from training is usually assessed through the Kirkpatrick model, as stated by Cabinet Minute 2140 (1998). It further detailed that the selection of evaluation criteria, or the dependent measure used to operationalize training performance, is a crucial option that must be made when assessing training effectively. Even though other methods and models for evaluating training have been put out (e.g., Day et al., 2001; Kariger et al., 1993), Kirkpatrick's (1959, 1976, 1996) four-level model of training assessment and criteria remains the most often used (Salas & Cannon-Bowers, 2001; Van Buren & Erskine, 2002). The Kirkpatrick Model, as modified by the Phillips five-level framework, was used in a study conducted by (Effendi M 2002) conducted a study on the Kirkpatrick model and its influence on learning systems on open university. His findings suggested that “*Kirkpatrick Method can be used as one of the methods used to evaluate the quality of learning systems to improve the quality of higher education. This is evidenced by all levels of Kirkpatrick evaluation, namely Reaction Level, Learning Level, Behavior Level, and Result Level positively and significantly affect the quality of the learning system.*”

Training and Development in the Public Sector

The public zone is vast, expansive, and well-grounded. Given the role that job-based training plays in employee growth and organizational effectiveness, companies are expected to place a high value on training. However, many firms are hesitant to offer training. The expenditures may outweigh the advantages of allowing workers to transfer their abilities to other companies because training has measurable benefits (Ismail, Noor, and Awang, 2008). The Public Sector training and development is developed through Cabinet Minutes 253 and 2470 (1998), which guide the recommended frameworks of training development.

Knowledge management pertains to the public, civil society, and private sectors in addition to the former. The public sector is significant, expansive, and governed by regulations and a hierarchical structure. Also, this makes it challenging for knowledge management to develop in the public sector (Wigg 2000). The public sector has many stakeholders, including personnel, people, and development organizations. The sector must adopt policies, plans, and actions that allow them to profit from the knowledge of these role players and benefit from their expertise to fully realize the benefits of implementing knowledge processes.

According to Goldstein and Ford (2002), training and development of learning systems increase the effectiveness and productivity of individuals and groups within organizations. Despite considering training to be fundamental, it is crucial to clarify that development in this sense refers to actions that result in acquiring new information or skills to advance within companies.

Training in the Public Sector

Ekaterini and Constantinos-Vasilios (2009) support this claim by arguing that training is one of the most comprehensive strategies for improving how effectively people communicate corporate goals to others. In agreement, Rohan and Madhumita (2012) also contend that spending money on staff training in decision-making, teamwork, problem-solving, and

interpersonal interactions positively impacts the firm's degree of growth and the productivity of its employees. The foundation of employee training and development for advancing their skills and talents is organizational training and development programs because it involves more than just training; it is a complicated procedure.

In-service training, orientation programs, refresher courses, conference presentations, research work, workshop participation, academic contact, peer learning, and self-development are included. Personnel behaviour and working abilities lead to both enhanced performance and positive changes. Colombo and Stanca (2008), Sepulveda (2005), Konings and Vanormelingen (2009), and Colombo and Stanca (2008) all concur that training is a tool that profoundly impacts measuring the effectiveness and efficiency of ROI of Training and Development.

Despite the importance of in-firm training to firm performance, innovation, and productivity, there is little empirical study on it, particularly in developing countries. Most studies on the benefits of investing in human capital focus on formal education and show that raising salaries, encouraging innovation, and boosting productivity through the development of human capital through formal education (Moretti, 2004). There needs to be more research on human capital development through in-company training, the variables that affect it, and the effects on innovation and productivity.

There need to be more opportunities for people in the labour market to receive infirm training. According to Mohan, Preeya, Strobl, Eric, Watson, and Patrick (2017), seventy institutions from the public and commercial sectors were polled for 2001 World Bank research on training by the Jamaica Employers' Federation (JEF). The study indicated that more than 90% of businesses offered training, 84% reported sending employees on brief courses, 80% reported sending employees to conferences and seminars, 38% supported long-term formal training, and 28% offered apprenticeship training. The MNS training and development methods have evolved to incorporate in-house and more formal training. (Newsday 2022) In the case of the TTPS, which has been accredited by the Accreditation Council of Trinidad and Tobago and to date has awarded hundreds of participants with participation certificates and diplomas, which can add to professional and personal growth and development (Phillips 2023).

Additionally, more than 90% of the businesses questioned offered possibilities for employee up-skilling to enhance already-posted abilities rather than to make up for gaps. Basic and advanced job-related abilities were the most often trained areas. However, there was also a significant emphasis on academics and personal growth. The most often trained abilities were technical, problem-solving, teamwork, and computer. The MNS also provides various training opportunities in the technical, quality, skills, professional, functional, managerial, and team-bonding areas to enhance employees' skills and abilities. Although it was noted that foreign language proficiency needed to be improved, few businesses offered this training (Maharaj, 2023).

It is crucial to assess the efficiency of training initiatives (Goldstein, 1986; Hinrichs, 1976; Kirkpatrick, 1978; Wexley & Latham, 1981). Organizations need a reliable means to determine

if training dollars are being used appropriately without documentation of the effectiveness of training investments (Grove & Ostroff, 1991). In the MNS, there is a similar problem as training is assessed more on the surface, as identified by DPS Denise Phillip, further displaying the need for this research.

Training Effectiveness and Efficiency

(Farjad 2012) reported that to initiate more training effectiveness, organizations need to look at how the training and development system is aligned with the organization's strategy and what is being done to ensure that all training and development is practical. He also viewed training and development as an essential activity that contributes to an organization's overall effectiveness in Human Resources Management and that training and development is required for knowledge enhancement. Clark and Estes (2002); Mager and Pipe (1983) The goal of the training evaluation strategic plan is to establish rigorous techniques for assessing and reporting training effectiveness so that the findings can be used to improve training and training-related activities (such as mentoring and other transfer of learning supports),(SWEC, 2004,3) Many organizations are concerned about the contribution of training to organizational performance; however, the feasibility of such validation and evaluation has not been established consistently. According to Huang (2001), one of the causes is that Training Evaluation is frequently focused solely on the quantity of training offered rather than the quality of training.

(Farjad, 2012), The training evaluation results will allow the organization to determine more precisely if the training was beneficial. On the other hand, Broad and Newstrom (1992) claimed that the skills and information acquired during training must be transferred to the job for training to be effective. According to Huang (2001), the focus of most studies on training effectiveness was on establishing the Relationship between Training systems or practices or factors (individual and organizational) with training effectiveness, with an emphasis on objective, content, organizational factors, expenditures, duration of training, coverage of employees, delivery methods, profitability, growth, and overall organization performance. Training efficiency is an outcome of training effectiveness. (Watson, 2023) stated that training efficiency is the success of a training program. He further stated that it affects the organization's ability to meet its goals and objectives. It measures results through reporting, adaptability, and onboarding of staff. The efficiency of a training program (Rehman 2011) conducted a study on training effectiveness in the Public Sector in Pakistan, which concluded that of the most neglected areas is the lack of meaningful evaluation of training courses and the use of evaluation results for improvement in the effectiveness of training practices.

Kirkpatrick Evaluation Model

The Kirkpatrick Evaluation Model (Farjad 2012) states that Kirkpatrick's evaluation process entails a progression of four levels. Reaction, Learning, Behaviours, and Results are the levels in that sequence as follows: -

Reaction (Level I) - in which the responses of the learners are understood as their perceptions and subjective evaluations of the worth and calibre of the instruction. Kirkpatrick argues that any training program should, at the very least, go through this degree of evaluation to allow for

its progression. This level of evaluation measures how satisfied people who adhered to the course are. Learning refers to the extent to which individuals' attitudes change, their knowledge increases, or their abilities broaden as a result of the instruction.

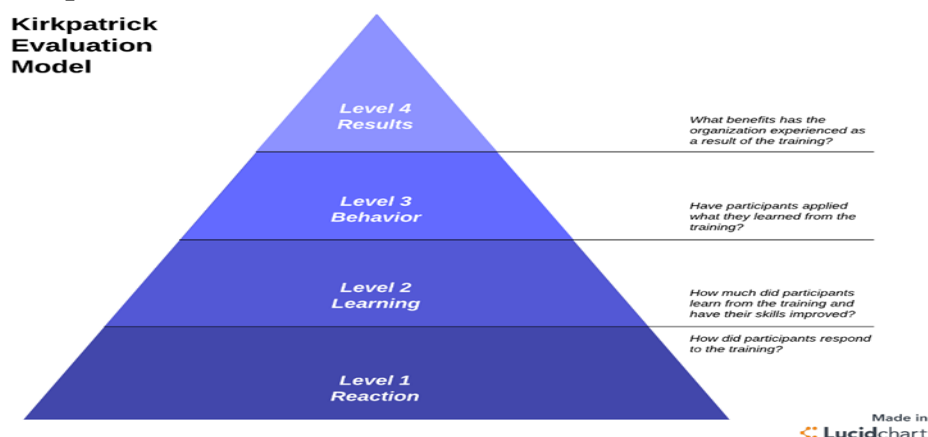
Learning (Level II) - Through formal or informal evaluation procedures, each participant's capacity to gain knowledge, skills, and attitudes is measured. The purpose of Level II is to assess the knowledge or intellectual growth from the start to the finish of the learning experience. The goal of Level II is to put the measurement equipment into use so that training and development may be evaluated for effectiveness.

Behaviour (Level III) - The third evaluation level involves changing work behavior or performance. Examining the change in workplace behavior brought on by the training is required for this. The fourth level of evaluation tries to assess training in terms of organizational results. The Kirkpatrick Model is reportedly the most well-known paradigm for classifying evaluation domains, according to Phillips (1991).

Results (Level IV) - Level 4, which is frequently thought of as the program's main goal, gauges the effectiveness of the training model overall by looking at things like reduced spending, higher returns on investments, improved product quality, fewer workplace accidents, faster production, and higher returns.

In a study of training conducted in Latin America and the Caribbean (Belize et al. and Tobago), Márquez (2002) found that, compared to the United States and Canada, the proportion of firms in the region that train workers, company characteristics, and the type of worker who receives training are not significantly different from developed countries. According to the report, 3 out of 4 businesses train their personnel, and businesses that have recently launched a product or process breakthrough are around 30% more likely to do so. Businesses in the services sector are more likely to train employees in terms of the elements that influence training.

Figure 9: Kirkpatrick Evaluation Model



(Microsoft Bing, 2023)

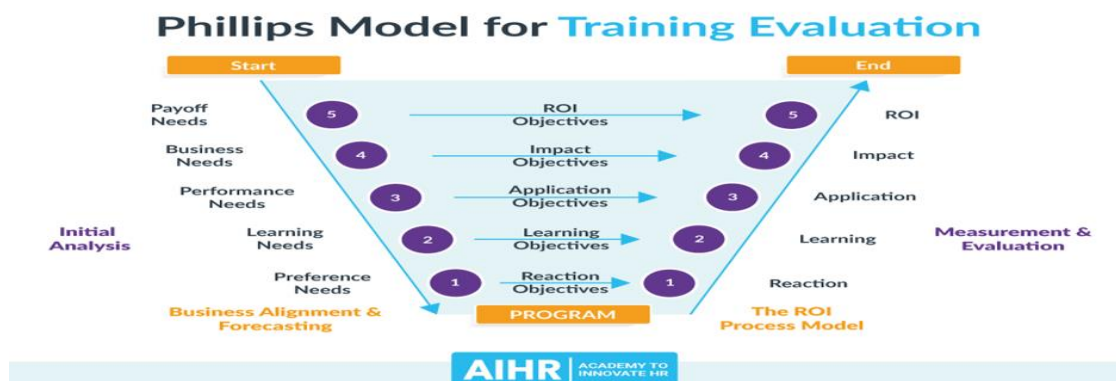
((Peck, 2023), reported that the Kirkpatrick model is the most popular approach to evaluating training programmes. In addition, these four levels are necessary for collecting the data required to evaluate the ROI of training and development using the Phillips ROI Model. (ROI Insitute, 2014) reported that the Kirkpatrick model provides the initial framework for measuring performance and improvement of programs.

Training Evaluation using the Phillips ROI Model

The Phillips ROI Model adds the fifth level of measuring the ROI of training and development as part of the Kirkpatrick evaluation model. The Kirkpatrick Model builds the four levels necessary to evaluate the ROI of training and development. (ROI Institute, 2014), The additional measure used the Phillips ROI Model to show a financial contribution to the organization while balancing data. According to a study conducted by Watson published in 2017, the WBES found that 25% of businesses that did not train employees from Trinidad and Tobago identified this as the main barrier to in-firm training, followed by 18% in Jamaica. The study's authors concluded that this barrier, which states that "the benefits of training are smaller than the costs," must be addressed. Further, survey data stated that 10% of corporations did not operate training programs from the Bahamas or St. Vincent and the Grenadines, and 23% did not run training programs from Trinidad and Tobago. The obstacle that "the firm is worried workers quit after investing in training" demonstrates that Suriname (16%) was the country with the most significant negative impact on businesses that did not educate employees, followed by Belize (17%). Due to this, Trinidad and Tobago (18%) and Antigua and Barbuda (12%) in 2014 were higher than Antigua and Barbuda (11%) in 2010.

Many top-performing American and British businesses have employed the Kirkpatrick/Phillips model for training evaluation to assess the effectiveness of their education and training initiatives on organizational results (Medina et al. 2015, 126). First devised as part of Kirkpatrick's doctoral dissertation in 1959, this model was later improved by Jack Phillips, who added a fifth level. ("Measuring return on investment and risk in training - SciELO") A graphical illustration of the model is shown below. The Phillips Model will be discussed as the framework for measuring training ROI within the GAD MNS.

Figure 10: Utilizing Phillips Model for Training Evaluation



(Diagram taken from the Academy to Innovate Human Resources 2023)

Mattson (2000) states that while training evaluation is critical in a time of limited funds, competing projects, and the need to spend budgets cautiously in a globally competitive trading arena, businesses only sometimes automatically evaluate the effectiveness of all projects undertaken. The complexity of the training evaluation or the difficulty of establishing a causal relationship between money spent on training and genuine improvement of business performance or a real influence on the bottom line are listed as reasons. (Spitzer, 2005). The most apparent reason for evaluating training is to determine its worth. ("Measuring return on investment and risk in training - SciELO") (Kennedy et al., 2013). Organizations that invest precious resources in improvement projects, whether for staff efficiency or skill training, are now demanding to evaluate the impact of such programs.

Phillips and Phillips (2002) presented numerous examples of how public sector companies utilize ROI techniques to handle their difficulties in an increasingly accountable and efficient environment. The ROI methodology was used by a wide range of institutions, from small local governments to state governments and from major cities to national and federal projects. However, despite the increased interest in using the ROI technique in the public sector, problems are unavoidable due to the specific characteristics of its business process.

The first misconception, nonprofit orientation, states that public sector organizations need to create income or profit, leading some to believe that applying ROI is no longer practical. However, there are other approaches to producing ROI by employing numerators other than profit and revenue, such as productivity, quality, time improvement, and direct cost savings through efficiency enhancement. In the GAD, MNS, which is service-oriented, the expected training outcomes usually include a wide array of intangible assets such as increased productivity, boosting employee morale, and system efficiency. As such, the Phillips model would be more than applicable in measuring ROI on training and development implemented by GAD.

The second myth is that complex data is unavailable in the public sector, leading some people to conclude that only intangible and soft data are available. Complex data, however, such as output, quality, cost, and time, can be used to calculate ROI. The third fallacy is that there are numerous stakeholders. The outcome of ROI evaluation must be communicated more because it includes legislators and taxpayers. This condition complicates presenting the outcome of the ROI method slightly. The fourth myth is about the core of government service. Regardless of accountability, the services given by the government are critical.

CONCLUSION

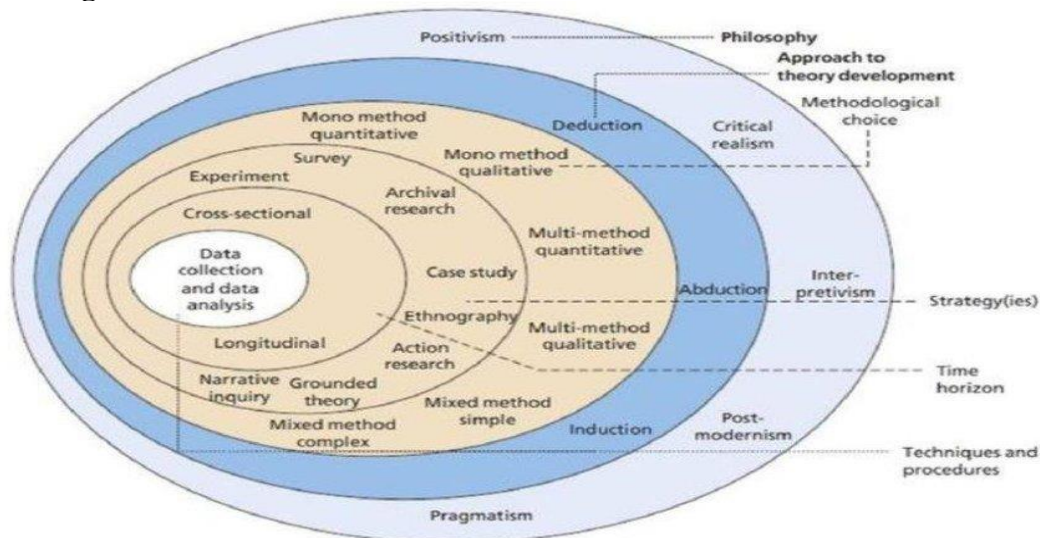
Research shows that measuring the ROI can help determine the effectiveness and efficiency of Public Sector training and development. Such assessments within the organization help evaluate training programs' benefits and which training contributed to the organization's success. Based on the literature review, measuring the ROI within the Public Sector can help ministries improve their effectiveness and efficiency of training and development. Specifically, the Kirkpatrick four-level framework and Phillips model should be used within GAD. They are

practical tools for measuring ROI and producing intangible benefits to evaluate and measure training effectiveness. Training efficiency is a result of training effectiveness, and thus, this study will assess the effectiveness and efficiency of training and development in the General Administration Department, MNS.

METHODOLOGY

The purpose of this study is to measure the effectiveness of training and development. In doing so, we would be utilizing the Research Onion Model to illustrate the approaches that would be used in developing the research methodology, through six (6) layers.

Figure 9: The Research Onion Model



(Diagram taken from Saunders et.al. 2019)

The Research Onion Model will provide the framework for evaluating the objectives of this study. This Model will ascertain the Ministry's current strategy of measuring its ROI effectiveness and efficiency of training and development in the HRU, GAD, and MNS. The focus will be on the evaluation of training and development and the ROI, which would be beneficial because it would illustrate how the country's limited resources are being utilized. The quality and effectiveness of the type of service that the Ministry provides, as well as highlighting the areas of improvement, will be the focus of the HRU of the GAD responsible for training within the MNS, as they deal specifically with the training and development needs of the Ministry and all its subsidiaries.

Philosophy

To analyze the performance improvements as they relate to the training and development thesis, a theoretical framework in which the research philosophy will be utilized. The research philosophy is crucial as it guides the thesis and objectives for the research strategy. In this regard, the philosophy by which this paper is guided is a mix of positivist approaches on which

the basic premise is that knowledge of a social nature is based upon what can be objectively observed, measured, and recorded. Furthermore, the interpretivism approach, in which the basic premise is that research methods focus on individual beliefs, motivations and reasoning using qualitative data to understand social interactions. This study would consist of a mixture of qualitative and quantitative data collection, with most of the data being quantitative as information would be generated from collecting both primary and secondary data. As well as qualitative data, which would be represented in the form of interview sessions with some of the senior representatives of the MNS.

RESEARCH APPROACH

This study will use an inductive approach when generating the problem of the research. We would depend on the collection of the data to gather information on the organization, that would lead to the formation and/or restructuring of theories on the problem with the ROI in the Ministry.

Research Type

This study will use the analytical approach to critically evaluate the facts and information by the means of applying a mix of both qualitative and quantitative to get more comprehensive research. The study utilizes a blend of descriptive and exploratory research methods to achieve its stated goal. The Kirkpatrick model (1994) was used as the theoretical framework and would have also been instrumental in the development of the conceptual framework and construction used in developing the questionnaire.

CHOICES OF METHODS

In this section, we will be choosing how many data types will be adapted in the research. In the onion model there are three viable options which are mono, mixed, and multi-method. We would be using the mixed-method simple approach which as the name suggests, consists of applying more than one type of data. Hence, the data collection method would consist of both the quantitative and qualitative data.

RESEARCH STRATEGY

The next layer in the Research Onion model will be used to determine the strategy of the research or how the research would be conducted. There are several different strategies that can be used when doing research but for the purposes of this paper would be utilizing the case study research strategy. In the case study approach, the research will be centred around a single topic, in this case the topic is the ROI on training and development in the HRU in the MNS.

TIME HORIZON

Initially, the intention was to distribute and collect all the data needed for the study at one point in time therefore utilizing a cross-sectional approach for the collection of data. We were using

a mixed philosophical approach where a substantial portion of the data was expected to be quantitative in nature, as data was to be gathered through structured questionnaires that were intended to be distributed, completed, and returned at a specified time. For the collection of the qualitative data the expectation was also the same, where interviews whether face to face or via a virtual platform, was to be done at one specific time. However, to get the number of respondents that we needed to make this research data viable we had to extend the time in which participants would be able to access the questionnaires, answer them and return the completed questionnaire. Even the interviews were conducted in two parts, once in person and another time over the phone. Thus, making the time horizon applied to this paper a cross-sectional one.

TECHNIQUES AND PROCEDURES

Sources of Information

The information that is utilized in this study would have originated more from primary data collection from respondents who were employees of the MNS and the ones recipients of the said training and development initiatives. The employees are from the different operational levels in the Ministry who were surveyed to identify two main responses i.e., the effectiveness and efficiency of the training to the recipients of the training and how this is measured.

Sampling Strategy

For this study, a calculation at 95% confidence level & +/- 5% Margin of Error reveals a sample size of 134. Probability sampling method, 'simple random sampling' because 134 is not far off from 100, and the results can be considered statistically valid with strong academic rigor. This will not be the case if you use 100 and a 'convenience' method "Convenience Sampling" which is a type of non-probability sampling. This method was used for the collection of data from the population who are conveniently available to participate in the study. The sample population would be generated from the employees at the Ministry of National Security and where all individuals of the target population have the same probability of being equally selected in the sample and to ensure viability at the various levels to be used as correspondents for this study.

Sample Size

The GAD of the MNS consist of 200 employees, however, the current population size is 134. For this study, a period of three- five years of training statistics would have been credible, however information provided on training were for the periods May 2021 to May 2023. The sample size is 90 of the 134 employees who work at GAD and would have attended training within the last 2-year period. To calculate the sample size, the Cochran's formula was used:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Method of Data Collection

This study utilizes both primary and secondary data in the gathering of information. The collection of the primary data was sought through structured questionnaires that was gathered from the Ministry's employees and was designed based on the research articles related to the topic, as well as through interview with four senior members of the MNS. The study had to rely on the employees who experienced the training and development initiatives implemented by the Ministry for its empirical data. The survey was undertaken by ascertaining employees from the various departments in the GAD to complete the self-administered questionnaires and surveys. Also, a face-to-face interview session was arranged between four senior members of the MNS by Ms. Baran and interviewed by Mrs. Hercules-Lee. They were presented with open-ended questions and allowed the opportunity to provide explanatory responses that would allow them to delve into as much information as possible. Additionally, quantitative data was generated from secondary data deriving from scholarly articles, journals, books, newspapers, and blogs.

Data Analysis

The data analysis portion of the thesis paper was prepared by looking at data validation, in which each participant was screened to ensure that the selection was in line with the research criteria. There would have been some data editing as it is expected that the data sample may have contained some errors. Lastly, there was data coding, where the information was grouped and assigned values to the responses. In this case, most of the grouping of the quantitative data was done by Survey Monkey and represented in charts and tables.

Data interpretation was a crucial part of the research process in which the data was converted from numerical information into a detailed analysis. As such, we would use the correlation data analysis method to examine the collected data. The correlation method is used to understand the relationship between two or more variables. We would use inferential statistics to analyse the qualitative data collected. In inferential statistics, a sample representing the population is used to make predictions about the larger community.

Interviews

Interviews were conducted with four senior officers of the MNS, Deputy Permanent Secretary, Ms. Denise Phillip, Ms. Melissa Maharaj Acting Senior Human Resource Officer, Head Office, and Dr. Simon Alexis – Provost, Head of Police Service Training for approximately one hour. A list of questions was emailed to them prior to the interview.

Statement of Confidentiality and Ethics

Approval from the ethics committee of the University of the West Indies was granted, a confidentiality agreement was made between participants and researchers. The non-disclosure agreement was guaranteed to participants before commencing with the data collection. It is to be noted, that the contentions of this research paper would be used strictly for academic

purposes. The research team also, successfully completed the CIC course before we embarked on this project.

Limitations of the Study

The participants of this study are from the HRU, GAD, and MNS; the data collected from this study may only partially represent the effectiveness of ROI on training and development within some of the divisions of the Ministry. Secondly, the data acquired from the GAD and MNS recorded a two-year period on completed training, which is another limitation. Furthermore, because we would have acquired some obstacles in the preliminary stages of the investigation, meeting the deadline for completion of this paper reduced the time spent conducting and authoring the thesis paper.

ORGANIZATIONAL DIAGNOSIS

In this section of the study, we will use a survey instrument with the Kirkpatrick Model to analyze the qualitative data retrieved to evaluate the effectiveness and efficiency of the ROI of training and development within the GAD, MNS, with the support of the HRU. The qualitative data took the form of interview sessions where questions were posed and answered by experts Ms. Melissa Maharaj, Acting SHRO of the Training and Development Unit of MNS, Dr Simon Alexis- Provost of the Trinidad and Tobago Police Academy, Ms. Denise Phillip DPS and Ms. Elise Moore Director of HRU of MNS. The interview aimed to get greater insight into the present training programs and evaluation methods utilized at the GAD, HRU, and MNS as we diagnose the extent of the problems (if any) that would have arisen from the research questions asked.

The analysis of the internal elements and how they are aligned to achieve GAD objectives was evaluated using the McKinsey 7s Model framework. The seven key elements are structure, system, strategy, style, skills, and shared values. For the ministry to gain and sustain cultural INTERNAL change, its resources and capabilities need to interact with each other in such a way as to create a unique core competency. Presently, the ministry has resource immobility; that is, it will cost the ministry large sums of money to develop its ICT Technology, HR optimization and cultural change resources. While it was observed that there are active attempts at progress towards the development of Strategic Performance Goals, there needs to be more growth in the optimization of metrics that validate training programs.

QUALITATIVE ASSESSMENT

The qualitative assessments were completed with interviews of four senior officials from the MNS, to further populate the results and findings of this study. Additional this will aid in formulating the results and findings of this study.

Q.1 What assessments are done to measure training and development effectiveness?

(Dr. Simon Alexis “*What assessments are done measure training effectiveness?*” interviewed by Ms. Keisha Lee Hercules 2023).

According to Dr. Simon Alexis (2023), there are several different methods in which training can be assessed. One of the methods involved is pretesting participants to see what level they are at before training begins. Upon completion of the program, they are evaluated again. Most of the approved training in the ministry is conducted by using end of course evaluation or end of program evaluation. In some of the courses there is what you call an 'impact evaluation' which is conducted after 6 or 9 months of the training, and it is done using the evaluation tool of the Kirkpatrick four level evaluation. The impact evaluation is administered through an online mechanism whose response rate is not as good as the researchers would have expected. However, they get better responses when they do a lot of engagement to call and get people to participate in the evaluation process/ feedback process.

Q.2 Evaluation of ROI Effectiveness on Training in the GAD

(Ms. Maharaj, Melissa "*Evaluation of ROI Effectiveness on Training in the GAD*" interviewed by Ms. Keisha Lee Hercules 2023)

As stated by the Deputy Permanent Secretary, Ms. Denise Phillip (2023), the MNS currently evaluates its training using the Kirkpatrick model. However, only the first two levels are often measured; that is Reaction and Learning. This is done after the course, where you ask them for their feedback on the content and other aspects of the training and that is where it stops. The other levels of the Kirkpatrick model being behaviour and the results are often left untouched. It is more difficult to measure ROI in the public sector than it would be to measure ROI in the private sector. For example, the commissioner of police would have alluded to there being an increase in crime detection. While it may seem that crime detection is extremely low in this country, police officers would have undergone special training which you can see in some of the behaviours transitioning into results, making apparent that there is really an increase in crime detection. Although there are improvements it may not be easily noticed instantly as crime continues to be a challenge that the MNS continues to fight. On the other hand, in the private sector it is more likely to see for instance if they have a safety training, in a year from now they can say they have a reduction in accidents but in the public sector we are not always able to see the results or ROI on training right away.

SHRO Ms. Melissa Maharaj (2023) indicated that sometimes when looking at ROI on training they consider both the tangible and intangible benefits as training is a motivational tool for officers. While working, officers would say they are not being exposed to any training, so when they get to go on training and development, they feel the organization is identifying that they want to develop and assist them in their development and that lends to some of the intangible value that the training provides. In terms of production, they consult with the supervisors and review the candidate performance after the training. They rely on the supervisors to provide information on staff effectiveness after the training.

How does GAD evaluate training effectiveness?

(Ms. Maharaj Melissa "*How does GAD evaluate the effectiveness of training?*" interviewed by Ms. Keisha Lee Hercules 2023).

The PA3 within the public sector requires supervisors to recommend training for staff, based on their performance and they assess their developmental training needs. Training could take the form of specific specialized training, coaching, mentoring or whatever is required to enhance their performance. Training evaluation is part of the assessment tool used in determining training effectiveness and measuring returns from government expenditure. In most instances participants of training is then monitored by their supervisors who would look closely at their work performance, their attitude amid whether they are applying any of the skills and utilizing the knowledge they have gained in their current role and function. In some instances, they have senior officers who would have undergone training coming back to engage in one-on-one training and emotional intelligence training with other staff. When members of staff who would have completed training return and treat matters differently, they do see the ROI to the ministry.

Q4. Should organizational outcomes be considered in determining a training program's success?

(Ms. Phillip Denise “*Should organizational outcomes be considered in determining a training program's success?*” Interviewed by Ms. Keisha Lee Hercules 2023).

A training programmes success must be measured against the organizational outcomes when determining its effectiveness. Many programs fail because they are focused on meeting training demands rather than assessing employee needs. The shared values that drive both the hard and soft aspects of McKinsey's 7s model are the same values that the MNS identified. These include professionalism, integrity, and ethical behaviour, as well as teamwork, fairness, and a focus on people. Professionalism refers to how individuals of the organization are required to behave in their actions and attitudes at all levels, including leadership, management/supervisory, and operational/frontline. Members of the GAD are expected to always uphold the code of conduct while doing their tasks, displaying the highest level of integrity and ethical behaviour.

Coaching and mentoring is an essential practice which is done by managers in guiding staff in understanding their roles and how to apply it to the requisite of organizational goal. Within the GAD, staff reported that trainers should be evaluated. Managers and staff are required to transfer knowledge and material. They must establish a climate in which the lowest ranking employee can contribute to the organizational goals and objectives.

When does the training begin?

(Ms. Maharaj Melissa “*Where does training begin?*” interviewed by Ms. Keisha Lee Hercules 2023).

The process of selecting or determining what training is needed begins with a periodic report, which is done on a quarterly basis and accesses the performance of the officer and accesses the strengths and weaknesses and the identifies the training needs of the officer. This assessment is based on the ‘position description’ which the officer is presented with upon the assume of office and is different from the job description which is a more generic document. The position

description is more specific to the functions of each department. The supervisor would then go through the duties and be clear on what steps need to be taken to perform the duties outlined.

This assessment is done on a quarterly basis and the quarterly basis does not have to be a calendar year; it is counted from the time of assumption of duties. In the first three months the officer supervising you meets with you and discusses your performance and accesses what development or training you may need. They identify specific training, specific coaching, mentoring or whatever is required for you to enhance your performance. T&D is seen as a means of developing the officer, so, we use the performance Management appraisal system in the public service, which in the public service regulation there is something called a Public Service Annual Performance Appraisal Report (I was presented with one to look at and is called PA3).

The PA3 is done at the end of the year of the officer's performance, when the PA3 is being done, it must show that those training needs that were identified in the periodic report and should have been done with the officer to enhance the performance of the officer. These performance rating is increased, because the training when identified are put into a data base and in forming training plans for each fiscal year, a statement of expenditure is prepared in which they pick up all the training needs, so that we can ensure that funds are allocated accordingly to ensure we can meet the training needs of the employees. There are some yearly trainings that is carried out to ensure the organization ca function, such as salary administration and delegated training are example of training that is conducted regularly. The recruiting of officers within the specific divisions is a training that is conducted as well and is done on a need to basis and is an ongoing process.

Summary of Qualitative Data

The main themes arising from the interview were how the ministry current assess its training presently, how does training begin, and how are evaluations conducted. Findings suggested that the Ministry only measures post training and at levels 1 and 2 of the Kirkpatrick model. Additionally, assessing employee training needs and satisfaction are not ideally a practice of the ministry and considered when selecting training programs (Dilchan 2023).

RESULTS AND FINDINGS

In this part of the paper, we examine quantitative data on ROIs retrieved from GAD and MNS. The only point is to examine the importance of measuring participants' responses and progress in the transfer and implementation of knowledge, skills and competencies. A survey of staff perceptions of measuring ROI in training and development was conducted internally at MNS GAD. Show improvement is a measure of the degree of application in the workplace and the importance of improving presenter performance. We will now examine the following results and findings.

The purpose of the investigation is to identify employee behaviours that may be hindering the growth of the department. Measuring the ROI of training and development will also help understand GAD MNS culture as well as internal and external workforce analysis. A total of 90 participants from MNS HRU participated in the survey. Data results and findings are listed below, not the Kirkpatrick model.

Quantitative Assessment

The quantitative information provided below was generated from the questionnaires distributed to the GAD's MNS staff through survey money. The results are from 90 staff members who successfully completed the survey, and the data is as follows.

Survey Results

The participant rate of females was higher than that of males; there were 52.22% females and 47.78% males. Most of the staff fell within the age bracket of 35-44, represented by 38.89% and followed by 26.67%, which was the 25- 34 age group. Next was the age group 18- 24, marked as 15.56%, and lastly was the two lowest age groups of 45- 54, 10%, and the 55- 64 age bracket, accounting for 8.89%. This leads to the indemnification of staff needing to be more satisfied and motivated in performing their duties. The training offered has not impacted on the staff's behaviour in their job.

Chart #1: Demographics of male and female

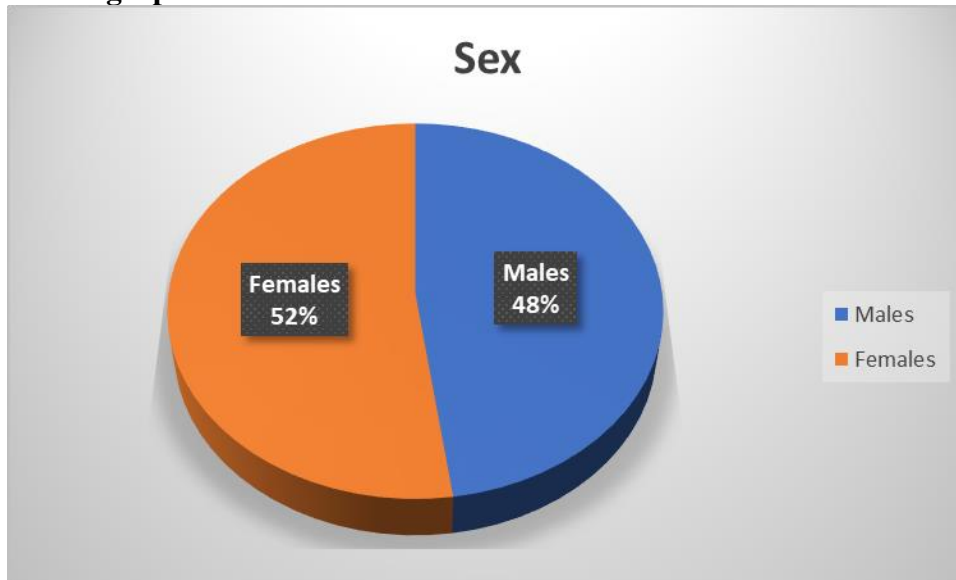


Chart #2: What is the highest level of education you have completed? (“What is the highest level of education you have completed? (Q54)”)

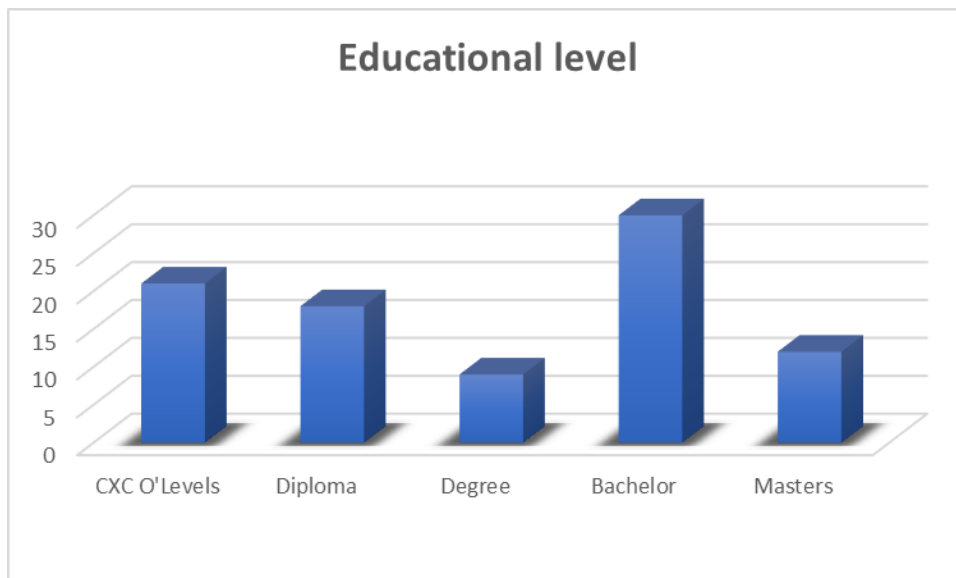


Chart #2 shows the educational levels of the respondents. The question was asked about the number of people needing or requiring training. According to the data collected, 21 respondents had acquired up to their CXC Levels passes. 18 people would have possessed a diploma, while only 9 people had their first degree. Out of the number of employees who responded, 30 had their bachelor's degree, and 12 went further to acquire their Masters.

Chart #3: Number of years in current position

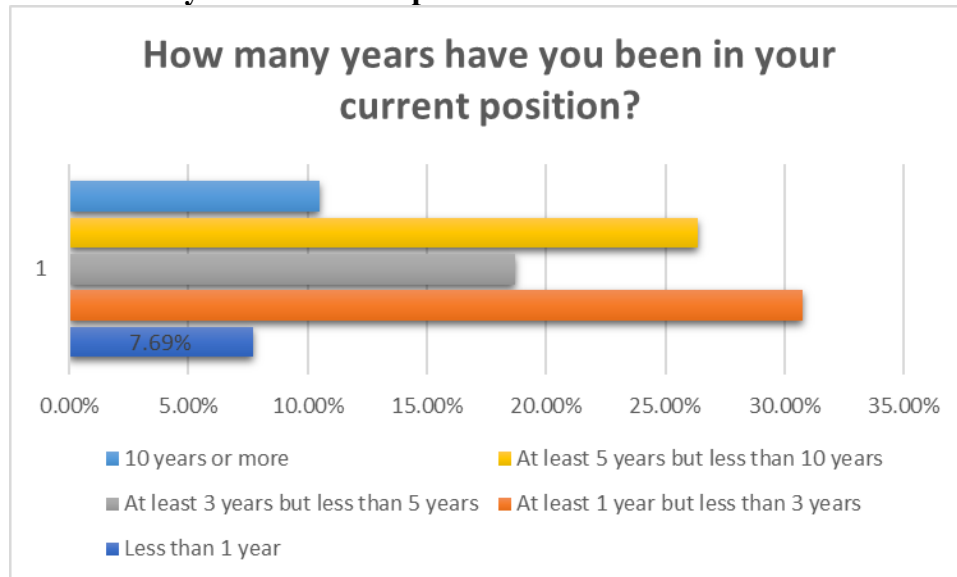


Chart #3 above illustrates the number of years that a person would have been in their current position. In most cases, the hope is that when someone is sent on training, they will return to implement and practice what they have learned to benefit the organization. This information can give a better idea of the average length of time that someone may spend in a particular position at a given time. According to the survey, 7.69% of the candidates stated they were in their positions for under 1 year, while 30.77 % indicated that they were in their current position for at least 1 year but less than 3 years. 18.68% would have been where they are for no less than 5 years but more than 3 years. 26.37% said they were there between 5 to 10 years, and 10.48% were in their current position for more than 10 years.

Chart #4 illustrates the response of staff within the MNS.

Q8 How Important is it to measure a participant's reaction in Improving processes to track participants' progression with skills?

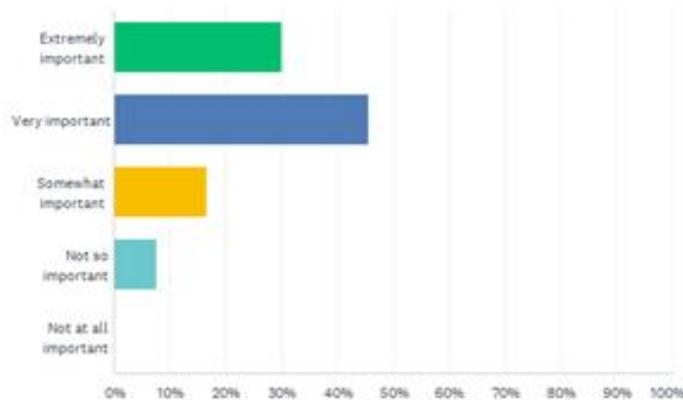


Chart #4 findings suggested that it is imperative to measure participant's reactions, as represented by 46.56% of the participants. However, 7.78% represented the percentage of persons who felt it was not essential to measure reaction to training received. As the first level of the Kirkpatrick training evaluation model aims to determine if the proper conditions exist for learning, comprehension of the influence training has on behaviour will demonstrate the effectiveness of a program.

Chart # 5: How important is it to measure and improve facilitator's performance?

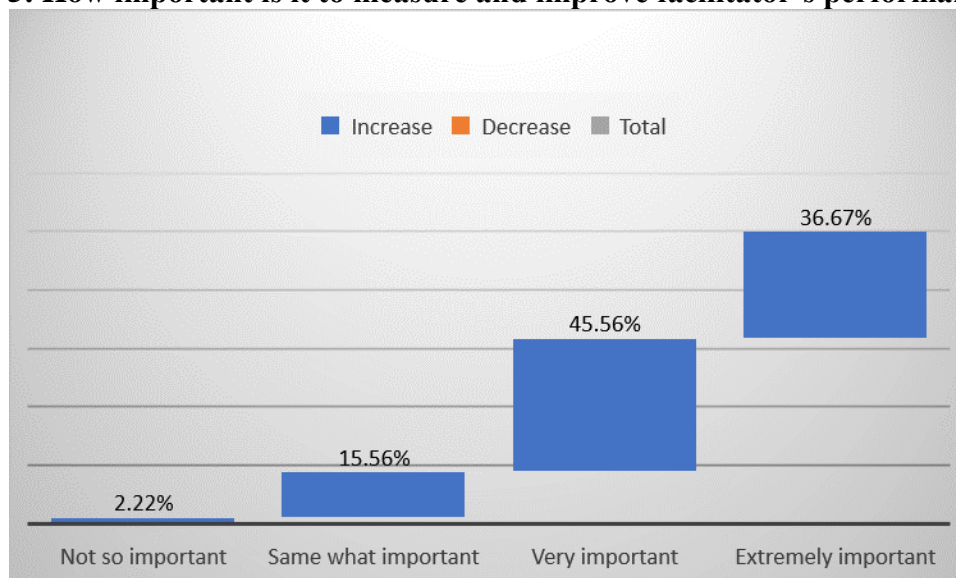


Chart #5 suggested that facilitators must be assessed to determine the effectiveness and ability to train staff efficiently. Trainers are required to be evaluated on their ability to transfer training as well as managers. Staff indicated their importance in measuring and improving a facilitator's

performance. The survey suggests that tracking staff performance with new skills trained is essential. However, it is only sometimes measured by managers. Middle managers need to be fully able to assess the progress and skills of staff development.

Chart#6: Career advancement opportunities available

I am pleased with the career advancement opportunities available to me.

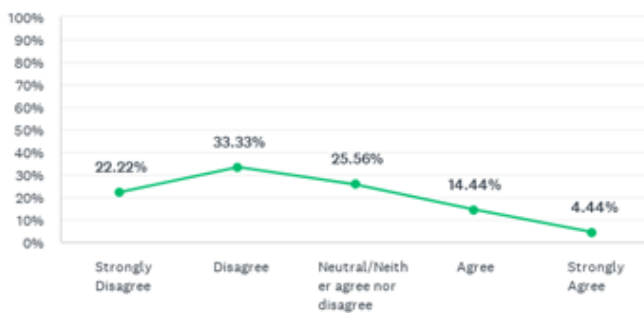
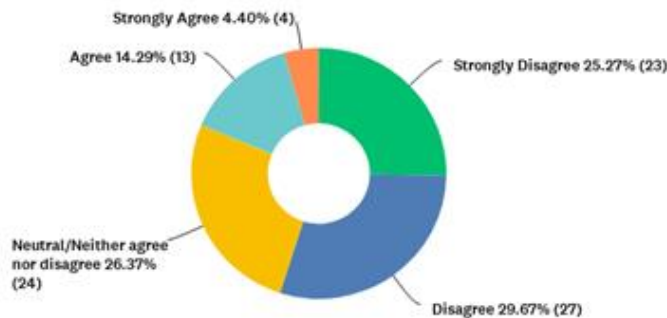


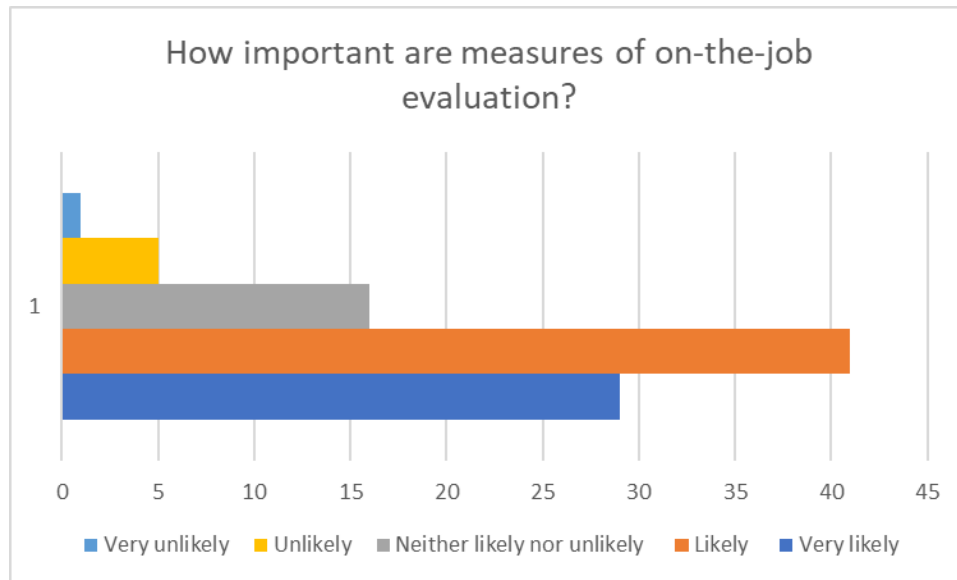
Chart #7: Management within my organization recognizes strong job performance?

Management within my organization recognizes strong job performance.



There was a disparity in staff behaviour in their current roles in that employees felt they were not recognized for their performance in the workplace. Job satisfaction and the lack of morals result in dissatisfaction with their career opportunities. Many women within the Ministry of National Security are between the age group of 35- 44 years. Most women within these age groups will find it challenging to grow their careers due to family obligations.

Chart #8: How important are measures of on- the –job evaluation?



The GAD and MNS illustrated forty-three (43%) likely and twenty-six (26%) very likely agreed that it is essential to measure the job evaluation. Further, training and development effectiveness measures the degree to which trainees can apply their learnt skills. The ability to measure training effectiveness depends on the attitudes, behaviours, willingness, attitudes, and expectations of the trainees and their environment.

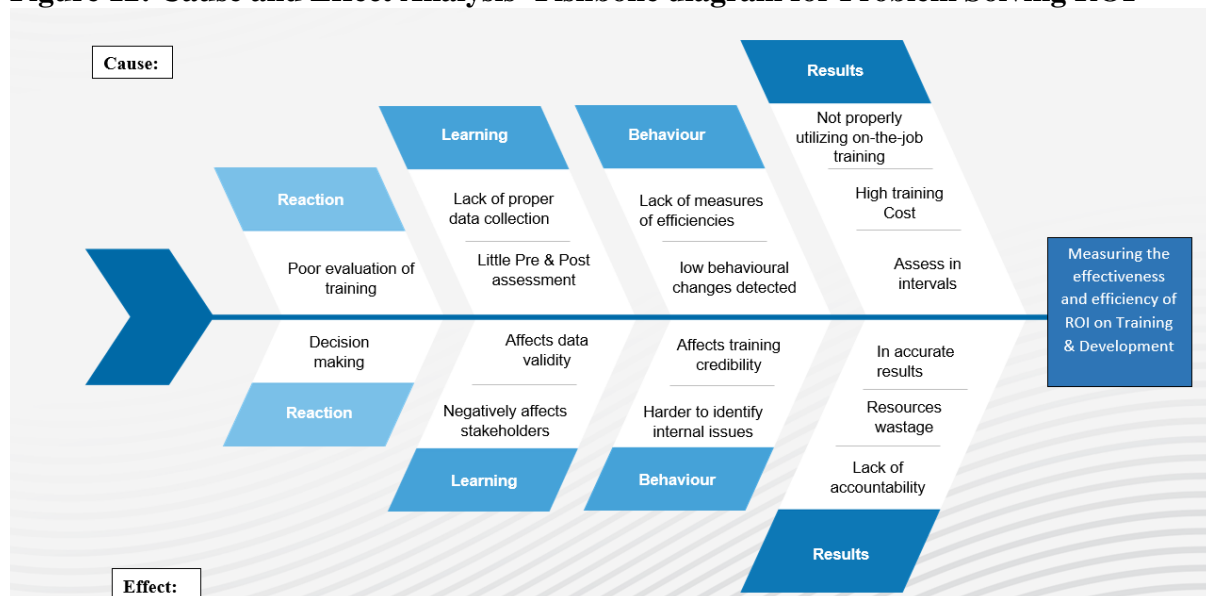
SUMMARY OF THE RESULTS AND FINDINGS

The organizational diagnostic, results, and findings will now inform the fundamental issues within the GAD MNS. As such, we would use the four levels of the Kirkpatrick model to highlight the key challenges and potential effects on the measurement of training and development programs delivered by the HRU, GAD, MNS.

FISHBONE ANALYSIS

The Fishbone diagram, sometimes referred to as the Ishikawa diagram (2023), will be utilized to discuss the key issues coming out of the findings of the study.

Figure 12: Cause and Effect Analysis- Fishbone diagram for Problem Solving ROI



(Source: Images Ishikawa diagram 2023)

The fishbone diagram illustrates the critical issues identified because of the research conducted, and the data collected is a mix of qualitative and quantitative data. The fishbone was designed to show the four levels of the Kirkpatrick model currently utilised by GAD and MNS and the critical issues identified under each tenet of the Kirkpatrick model. The reaction level is aimed at gauging participants' responses to the training provided, and the more popular evaluation methods are questionnaires, surveys, and focus groups, to name a few. Though it was the most evaluated, the response level has much room for improvement. At the reaction level GAD, MNS emphasises getting feedback from participants after completing a training session. Both employees and facilitators benefit from the feedback, as 46.56% of employees (question 8 of the questionnaire) believe training sessions that are assessed are more valuable, and the facilitators are more aware of how participants feel about the training. The effects of not getting sufficient feedback from employees on their training experience would lead to a less than accurate assessment of the value impact the training sessions have on its participants.

Learning involves a more in-depth assessment, measuring what learning was achieved from the training provided. GAD, MNS emphasises assessing learning to know if the aim of the training was achieved, and this is done via pre and post-assessments, questionnaires, and personnel outreach to gain feedback. This chosen assessment method only sometimes yields the desired results (Dr. Alexis, 2023). A lack of proper assessment would result in the inadequate measuring of knowledge and levels of efficiency.

Behaviour is another vital component in the Kirkpatrick evaluation methodology as it expects to measure behaviour changes associated with the training provided. It is expected that once training is successfully achieved, it will be exhibited in the employee's behaviour. At GAD, MNS evaluation of behaviour is mainly conducted through on-the-job training, where employees are assessed by their supervisors (Ms Maharaj, 2023). Even 43% of employees found the importance of on-the-job evaluation as very likely (question #8 questionnaire). Assessing employee behaviour with the training provided could lead to discovering internal issues, learning applications and work efficiencies.

The results are the most essential part of the assessment method as it determines whether the target outcomes were accomplished. It also gauges the level of support and requires more accountability from the organisation's members. The level of engagement required to assess the results accurately is not easy to achieve in a public agency, and as revealed, more emphasis should be placed on evaluating the results from the training and development programs provided by GAD, MNS (Ms. Phillips, 2023). At the results stage, the evaluation methods are more complex and even take longer to measure the training results against the organisational goal accurately. If it is not done effectively, or it is not done at all, it can create issues such as miss inefficiencies, lack of accountability and goals accomplished

As a result of identifying the critical issues within the GAD, MNS, we will propose possible recommendations for improving the effectiveness and efficiency of measuring the ROI of training and development within the GAD, MNS.

Recommendations

The recommendations would be based on the insights from the diagnosis and findings portion of this research paper. The fundamental issues identified and that will be discussed are complete formula, ROI addition, data collection, increased feedback, and on-the-job evaluation, as these were the main issues we found with the Kirkpatrick model currently being utilized by the ministry.

Full Formula

One of the first or critical issues identified from the diagnosis of the GAD, HRU, is the failure to apply the evaluation of the four levels of the Kirkpatrick model to its assessment methods. The Kirkpatrick model has four evaluation levels: level 1 reaction, level 2 learning, level 3 behaviour, and level 4 results. Each level of the Kirkpatrick model is essential and adds to the overall evaluation of the implemented training and development. So, emphasizing only one or two aspects of the evaluation method would not yield a fair and accurate assessment of the training and developmental programs, which would affect the decisions being made about the programs, their level of effectiveness and efficiency, and whether it

is achieving the overall strategic goals of the organization. Thus, emphasis should be placed on completing the evaluation by utilizing all aspects of the Kirkpatrick model when assessing training and development programs.

Utilizing only some of the four Kirkpatrick models can affect the decisions about whether it was a worthwhile investment. As stated by Ms. Phillips DPS, she believes that in most instances, the training evaluation takes place only at levels 1 (reaction) and 2 (learning), leaving much to be desired as the fundamental or most important aspect of the evaluation process is left undone. She believes that with all the ministry accomplishes, the key to further success could lie in the unknown variants of levels 3 (behaviour) and 4 (results), where maximum output can be achieved.

Data Collection

As highlighted in the first issue, not using the Kirkpatrick model as intended leads to the limited assessment methods used when evaluating training effectiveness and efficiency. As it stands, the evaluation process rarely goes beyond seeking the participant's feedback, and the methods most used include questionnaires and surveys. As you progress from one level to the next, the level of complexity in the type of data collection and application used increases. Many methods can be utilized for data collection that can be more effective and yield better results, which would help make future decisions.

Data Collection is essential to the ROI Process; complex Data, i.e., Output, Quality, Costs, and Time; Soft Data, i.e., work habits, work climate, and attitude, is collected. Post-program data can be collected in various methods, which can be applied to the different levels of the Kirkpatrick evaluation method. The table below will highlight the suggested recommendations for evaluation methods at each level of the Kirkpatrick evaluation model.

Table 5: Data Collection Methods at Each Level

LEVELS	DATA COLLECTION METHOD
Level 1: Reaction	Surveys
Level 2: Learning	Exams/ Assessments Questionnaires
Level 3: Behaviour	Observations Interviews
Level 4: Results	Performance Contracting Performance Monitoring

The table above shows the suggested data collection methods that can be utilized at the various levels of the Kirkpatrick evaluation model. At level 1, surveys are the most common evaluation tool, as they are used to measure how participants feel about their training experience. Level 2 suggested evaluation methods are exams/ assessments, which aim to measure participants' learning, and this can be done both before and after training. It can be a multiple-choice quiz or assessment where the questions align with the learning objectives and course content.

Questionnaires can also be used at level 2 as they are more detailed than a survey and used in open-ended or closed-ended options to uncover a wide range of data. Level 3 recommends observations as they better capture the association of change in behaviour due to training. Interviews can also be conducted to evaluate behaviour changes related to training. Last but not least, at level 4, performance contracting can be used, and it is developed by the participant, the manager, and the facilitator to measure performance outcomes. Performance monitoring is also the monitoring of various performance records and operational data for change.

Increase Feedback

Next on the list of the issues identified would be the need to widen the response pool when evaluating the effectiveness of training and development programs administered by the GAD. As stated by DPS Ms. Phillips (2023), evaluating the effectiveness of training and development in the public sector is more complex than measuring training effectiveness and efficiency within the private sector. One of the main reasons for this is that any governmental agency falls under the umbrella of the Government of Trinidad and Tobago, and citizens and members of the public make up the clients of the ministries. To this end, widening the evaluation process to include internal and external stakeholders gives a better sense of the program's success. It is fair to include feedback from all stakeholders, particularly the members of the public if you get a more holistic assessment of the effectiveness and efficiency of training programs administered to governmental agents. Another reason is that since most (if not all) governmental agencies are service-oriented, the metrics used to measure training effectiveness and efficiency are the most complex but also the most valuable.

On-the-Job Training

Lastly, the issue of evaluating specifically the effectiveness of training and development through on-the-job training is an area that needs to be explored more. In MNS, GAD Ms Maharaj SHRO stated that the training not only takes the form of well-structured programs but is done continuously through mentoring, coaching, counselling, and whatever else may be needed to enhance employee performance. It is one of the best tools for measuring results and the learning aspect of the training given.

Addition of ROI

In addition to fully utilizing the Kirkpatrick model to evaluate the effectiveness and efficiency of training and development initiatives implemented by the GAD and HRU, we recommend adding a fifth-level ROI from the Phillips ROI methodology. The Phillips method compliments/ builds on the Kirkpatrick model and aims to show the correlation between the cost of training programs and their actual results, clearly showing the monetary benefits. The fifth level of ROI is specifically to calculate the ROI of each training program implemented. The learned training outcomes are compared to the total training costs in ROI.

Based on the recommendations, we will consider utilizing the Kirkpatrick model to look at the evaluation of training and development with the complement of the Phillips ROI Five Level framework to give the GAD a more comprehensive and effective method of evaluating the effectiveness and efficiency of ROI of training and development within GAD and by extension the MNS.

COST BENEFIT ANALYSIS

Now that we establish the HR plan, we will look at the proposed Cost Benefit of its Implementation and its direct benefits.

Project Objective: To evaluate the best method of measuring ROI of Training and Development within the MNS, Head Office.

Table 6: Cost and Benefit Analysis

Category	Description	Cost \$	Benefits to GAD, MNS
Full Formula	The cost associated would account for any raw materials needed at for evaluation of levels 1-4.	1000	This will allow, GAD, MNS to make more accurate decisions about the training value and future programs.
Data Collection	The collection of data for levels 1-4. The budget would include raw materials, subscriptions/ membership fees for online survey services.	3000	To get more comprehensive data to measure the effectiveness and efficiency of ROI.
Increase Feedback	Limited cost, as it can utilize online customer satisfaction surveys/ polls.	0	Better involvement from all stakeholders.
On-the-job Training	No cost as this can be done in the workplace by supervisors/ managers.	0	Allows for real time evaluation of employees.
Addition of ROI	There would be little cost as this stage relies heavily on the data already collected.	0	The GAD, MNS would be able to determine if the investment in T&D is a good one.
Consultancy Fee	Labour fees of consultants calculated at a monthly rate by the duration of the program. $(\$12,100 \text{ (rate)} \times 7$	84,700	Permission granted to conduct this study, there would

	(months)) N.B. all figures have been rounded off to the nearest hundred.		not be any cost to the ministry.
Total		88,700	

The cost analysis consists of the recommendations to address the shortcomings of the Kirkpatrick evaluation model being used by the Ministry, what cost would be associated with each recommendation, the amount, if applicable and how it would benefit the Ministry.

The first and most important recommendation that should be implemented is utilising the Kirkpatrick model, which would allow the Ministry to assess the effectiveness of the training and development programs. Doing this will come at little to no cost to the Ministry as it would already have all the necessary information and groundwork for implementing the Kirkpatrick model. Once fully enforced, it would provide the Ministry with more relevant and accurate information to make informed decisions concerning the training and further programs.

The following recommendation that should be implemented is the proper collection of data related to each level of the Kirkpatrick model. This is a necessary element in the full utilization of the Kirkpatrick model. The model can only be effective if sufficient data is collected. To achieve this, it must be ensured that suitable data collection methods are applied at each level of the Kirkpatrick model, as they require different levels of complexity to ensure the correct information is collected at each level.

The third recommendation to put in place would be to increase feedback. This is in reference to getting more feedback from the partakers of the training and development programs initiated and including the responses from relevant internal and external stakeholders. In government services, external clients, mainly the public, need to be noticed during the evaluation process. Their involvement would also give more accuracy to the findings and outcomes of the evaluation process.

The increase in on-the-job training is meant to evaluate employees that can occur continuously. Training can take the form of coaching, mentoring, and even counselling by supervisors, managers, or fellow employees. Engaging more in on-the-job training allows the employer to engage in continuous assessment, enhancing employee performance in the work environment. It requires little preparation and, as such, is easy to implement as it utilizes observation as one of the primary data collection methods, but it can be a more time-consuming process.

Lastly, adding the ROI as a fifth level to the evaluation process was recommended to determine further the monetary value of the training and developmental programs implemented. The Phillips ROI model was chosen as levels 1 to 4 of the model align closely with those of levels 1-4 of the Kirkpatrick model, and the ROI is specific to converting the data to reflect the monetary value where investors and stakeholders could see both the intangible and tangible benefits and returns on the training and development implemented.

BENEFITS**Table 7: Benefits to MNS**

Category	Description	Cost	Benefits to GAD, MNS
Direct Benefit	An HR Plan to increase optimization of the Training and Development Programs being run by MNS.	\$0	To increase T&D Programs effectiveness by 30%
Direct Benefit	An evaluation of the effectiveness and efficiency of GAD, MNS ROI measures on Training and Development.	\$4,000	\$84,700 consultancy fee was not applied to this study.
Indirect Benefit	Increase stakeholder satisfaction	\$0	More customer engagement

The Cost Benefit Analysis shows all the elements of implementing the study's recommendations to enhance the current Kirkpatrick evaluation method used in the Ministry. The recommendations were based on the improvements of an already existing formula, which significantly lowers the cost of implementing such a plan instead of enforcing a new evaluation method. The anticipated cost of implementing the recommendations was observed in the raw materials for this project, the system setup/subscription fees and the human resources/consultancy fees, bringing the estimated overall cost to \$88,700. When the cost is compared to the anticipated outcomes, the benefits to GAD identified were categorized as direct and indirect. The direct benefits include an expected increase of 30% in the effectiveness of training and development programs at the end of the installation of the HR plan. The overall cost of the HR plan is significantly reduced as the Ministry does not have to pay the consultancy fee that would have been applied for the analysis and development of the HR Plan. There was also indirect benefit, which included increased stakeholder satisfaction and internal and external customer satisfaction and engagement coming out of the implementation of the HR plan.

Based on the Kirkpatrick model and to make improvements, the Phillips ROI model can be used since both models share the same elements through levels 1 to 4, with the Phillips model adding the fifth level that would precisely measure ROI. Therefore, the implementation plan's focus would be placed on the effectiveness of measuring the ROI in GAD and MNS using the Phillips ROI model to deliver the HR plan. The cost-benefit analysis further influenced this, depicting where emphasis needed to be placed to make it more effective. The HR plan ensures that the recommendations are placed in levels of importance. However, it is critical to note that all areas would be addressed as it is being done as one project to increase training and development effectiveness and efficiency within GAD, MNS.

HR Plan (Implementation Plan)

Human Resource Plan

The Results and Findings will now inform the development of an implementation Plan and will provide the HR plan with the steps for measuring the effectiveness of evaluating ROI on training and development. The Implementation Plan will help measure and identify each person's roles and functions within the GAD of the MNS. The HR plan will be rolled out using the Balanced Scorecard (BSC) method, which was chosen because it is already used in the government ministries. The BSC framework will ensure that we get both a comprehensive and all-round understanding of how the return on investment is measured, particularly on the level of effectiveness and efficiency with which one's work will improve after training is completed. Based on the research thus far, "What strategies can the MNS implore to measure its ROI in Training and Development to be able to improve its effectiveness and efficiency within the GAD?" was the focus of this study.

BALANCE SCORECARD

The balanced scorecard would connect the vision and mission of GAD and MNS to the strategic objectives. The strategic objectives of the implementation plan were derived from the recommendations given. The Balanced Scorecard is a framework that was adapted for use by nonprofit and governmental agencies. The matrix below illustrates the importance of aligning the project's strategic objectives to the company's vision and mission, which focuses on putting initiatives in place to achieve the stated strategic objectives. The tenets of the BSC are financial, customer, and internal business objectives and innovation and learning objectives; these align with the firm's strategic objectives. Based on the strategic objectives outlined in the BSC, these objectives can be delivered through an HR plan that would be designed based on the Kirkpatrick and Phillips ROI evaluation model for the delivery of the components of this study.

Table 8: HR Plan (Balance Scorecard Framework)

<i>HR Plan</i>				
<i>Vision: To be at the pinnacle of public safety and security delivery</i>				
<i>Mission: To advance national development by creating a safer and more secure society through enhanced collaboration among all stakeholders, intelligence-based decision-making and strengthened inter-agency structures and systems.</i>				
BSC Perspective	Strategic Objectives	Action Plan	KPIs	Description/ Expected Outcomes
Innovation and Learning Objectives	- Enhanced employee capability Through utilizing the full Kirkpatrick formula	- Level 1 (Reaction) Kirkpatrick - Level 2 (Learning) Kirkpatrick	- Employee Diversity - Skill enhancement - % new hires retention	- Higer skilled employees - Greater stakeholder engagement

Customer	- High Quality Human Resource Services by data collection and increased feedback	- Level 3 (Application/ Implementation) Kirkpatrick	- Employee satisfaction index - Employee engagement index	- Measuring employee turnover rate - Higher employee engagement
Internal Business Objectives	- Optimize Human Resource service through different channels Such as on-the-job training	- Level 4 (Business Impact) Kirkpatrick	- Cycle time to fill positions - HR technology ROI - % Training Delivery	- Employee Satisfaction Survey in alignment with the project - System efficiency
Financial	- Maximize Human Capital Development - Minimize Human Resource Cost using ROI	- Level 5 (ROI) Phillips ROI	- Budget Variance - Human Capital Value added - Revenue per employee - HR ROI	- Reduced customer complaints - Customer satisfaction

The HR plan is being rolled out using the BSC framework. As such, we would have used the BSC model to implement the changes highlighted in the recommendations above. The BSC begins with the vision and mission of the company at the top of the table. This is necessary as it helps align the business strategy with the strategic objectives of the implementation process. These objectives are further positioned with the BSC methodology's four perspectives: financial, customer, internal business objectives and innovation and learning objectives. The HR plan is linked to the implementation process by identifying which levels of the evaluation method would be applied to each of the BSC tenets. The KPIs are the benchmark to assess whether the strategic objectives are being met. Lastly, the expected outcomes will assist in further determining whether the strategic objectives have been met.

IMPLEMENTATION PROCESS

Based on the limitation of the study, which is stated in the recommendations section, the focus of the plan will be on this ROI process: -

Table 9: Implementation Process

Levels	Action	BSC Perspectives	Methodology
Level 0: Planning	- Develop Objectives of solution - Develop Evaluation Plans and baseline data		

Level 1: Reaction	-Collect data during solution implementation	Innovation and learning objectives	Kirkpatrick
Level 2: Learning			
Level 3: Application/ Implementation	-Collect data after solution implementation	Customer	Kirkpatrick
Level 4: Business Impact		Internal Business Objectives	Kirkpatrick
Level 5: ROI	- Isolate the effects of solution -Convert data to Monetary value -Tabulate costs of solution -Calculate ROI Identify intangibles	Financial	Phillips ROI
Reporting	-Generate Impact Study		

PHILLIPS ROI- Phillips ROI model- Five Level will be used in the HR- Plan to deliver this study. The components of the study will be measured using the KPI of the Balance Scorecard. These are then aligned with the Phillips ROI model. These key performance indicators are used as measurement tools, and they help all engagement personnel align their duties to achieve the strategic objectives at all levels of the organization.

The ROI process consists of 10 steps, which are divided into four sections and incorporate the five (5) Levels of the ROI model.

EVALUATION PLANNING

Level 0 - The first step is to Develop the Objectives of the Solution. This means that clear objectives should be established to identify the expected outcomes at each level of the evaluation process. The second step is to Develop Evaluation Plans and Baseline Data, as the name suggests, about creating a plan for conducting the evaluation. For this, the focus would be on the three main components of the evaluation process: creating a data collection plan, having a plan for ROI analysis and creating a project plan. Planning how the evaluation will be conducted and stating the expected outcome is the only way to ensure a successful evaluation.

DATA COLLECTION

Level 1 (Reaction, Satisfaction and Planned Action)- Collecting Data During the Solution. In this section, commitment from the top down and bottom up is crucial to the initiative's success. Executive-level officers must understand the program and lend their support to ensure a successful rollout, just as bottom-up requires the workers to understand what they need to do to carry out the initiative. During the data collection process, the most popular means of compiling data include questionnaires, surveys, interviews, and focus groups. This information can be retrieved from various sources, including internal and external customers, executives, team members, functional managers, and project sponsors.

Level 2 (Learning)- Also falls under the Collecting Data During the Solution. At this step, however, data collection would be centered around the learning metric as they can be used as a gauge in training. These can speak to how successful change has been after it was implemented as it is a means of better knowing if the organization's employees understand the skill and knowledge needed to enforce change. The metric for learning should be skill, knowledge, and attitude, while the data collection tools can include questionnaires, performance tests, performance observations and assessments.

Level 3 (Application)- Collecting Data after the Solution. This is the stage where the training is completed and implemented. The data gathered here would be to determine whether the training would have an impact when utilized. The data collection should be focused on performance, and evaluation methods can include questionnaires, surveys, and observation to determine competency levels. At this stage, an action plan would help determine what skills and knowledge learned or identified will be used. It can be used as a performance standard and highlight what will be done and when.

Level 4 (Impact) - Also falls under Collect Data after Solution Implementation. This determines the impact the training has on the business so that the data can be converted to monetary value. For this, the two types of data are hard and soft data. The Hard data refers to the tangible data and can be categorized into four data types: output, quality, time, and cost. Soft data refers to intangible aspects and is more challenging to convert to monetary values. Some categories of soft data include work habits, work satisfaction, customer service, employee deployment, initiative, and innovation.

DATA ANALYSIS

Isolating the Effects of the Solution-This is a crucial step as there can be many reasons for an improvement, and identifying these factors and recording their impact will add credibility to the impact the report from the solution implemented will have. To help identify these factors will require looking at multiple sources such as the project team, project stakeholders, subject matter experts and even middle to top management. To do this, the techniques that can be used are control groups, trend lines analysis, forecasting methods, estimates, participants' estimate of the impact, management's estimate of the impact, and internal/external expert impacts.

Converting the Data to Monetary Value- This is how you show the data collected as a monetary value, and this can be a challenging process as it needs to quantify business results. This is to determine ROI, which will show the value of the training and development programs. Most of the data relevant to Project Cost is found in the Project Completion Reports. The only cost that was not factored in is the cost of the participant's time. (ROI Institute 2004) suggested Government Agencies can create Cost Benefit Analysis with these five steps: Identifying the Program Benefits

- Convert Benefit to Monetary Value

- Tabulate the Full Cost of the Program
- Identify Intangible Benefits; and
- Compare the Monetary Benefits to the Cost

Identifying Intangible Benefits - the sixth data type mentioned before and carries excellent value to the organization. In some cases, if it is determined that data would be too time consuming or expensive to convert to a monetary value then it is reported as intangible data. As well, if the data has value in and of itself, then it is also acceptable to not convert to a monetary value.

Tabulate the Costs of the Solution- This involves the development of all related cost of the training program including internal and external to the project. Among these components the following should be included:

- The Cost of the design and development of the program, as well as the expected life of the program.
- The cost of all program material,
- The cost of the facilitator including preparation time and delivery time
- The cost of the facilities
- Salaries plus employee benefits of the participants' time they attended the program.
- Administrative and overhead cost of training and performance improvement

Level 5: (ROI) Calculate the Return on the Investment- the last step before the Reporting segment of the ROI process. The calculation of the Return of Investment of a program benefits and cost in formula form is:

$$\text{Benefit Cost Ratio (BCR)} = \frac{\text{Program Benefit}}{\text{Program Cost}}$$

The ROI also uses the net benefits of the program is calculated:

Net Benefits = Program Benefits – Costs

$$\text{ROI \%} = \frac{\text{Net Program Benefits}}{\text{Program Cost}} \times 100$$

The method chosen is meant to be obtained for the participants and the effectiveness of this approach is based solely on the estimated performance of participants in relation to the training program. This helps in establishing an expected level of performance to measure to determine if we are meeting expectations.

REPORTING

Reporting (Generate the Impact Study) - The impact study is where you get the opportunity to relay the entire story from beginning to end. This can be done through meetings, intranets, and weblogs, to name a few. This is an integral part of the process as it gives all stakeholders an understanding of the findings in a way that can be easily understood. This is an effective way to gather support throughout the organization and for future training and developmental initiatives, projects, and programs.

Management Team

Table 10: Management Team

Person	Task	Priority	Responsibility
Permanent Secretary	Evaluation of Planning	High	Review the HR-Plan status and key issues Milestones completed
Deputy Permanent Secretary	Reporting	Low	Review the HR-Plan project and its key issues. Schedule change requests based on the Key issues
Director Human Resources	Measuring the ROI	High	Providing employees, the time and support they need to learn new skills and adopt new procedures.
Senior Human Resource Officer	Data Collection	Very High	Assessing the employee's ability to implement the new skill and impact as change agents. To develop modification techniques that strengthen rather than stifle growing support

The management team is made up of a qualified leader/s and a group of individuals or team who, must work together to get a project done. It can include senior managers, individual staff or even stakeholders who can either be directly or indirectly involved in the completion of the project. The size of the team may vary depending on the complexity of the project. The decision

of who should be included on the team can be made based on if the person can meet one or more of the following questions:

- What can they contribute to the overall project objectives in anyway?
- Can they work on tasks to complete the deliverables?
- Can they provide expertise or knowledge support?
- Can they work with others to determine and meet project needs?
- Must be able to properly document the process.

One of the main benefits of implementing a management team to oversee the evaluation process, is that it ensures a certain level of accountability, when each member of the team has specific responsibilities and will be held accountable for making sure they get done.

Communication and Engagement Plan

Table 11: Communication and Engagement Team

Owner	Task	Priority	Responsibility
Mr. Gary Joseph	Evaluation of Planning	High	To established procedures that promote involvement and two-way communication
Ms. Denise Phillip	Reporting	Low	Selecting change agents who will both publicly support the desired change and naturally connect with individuals who will be impacted
Ms.	Measuring the ROI	High	Providing employees, the time and support they need to learn new skills and adopt new procedures.
Ms. Melissa Maharaj	Data Collection	Very High	Assessing the employee's ability to implement the new skill and impact as change agents. To develop modification techniques that strengthen rather than stifle growing support.

Having and maintaining effective communication is a critical factor in the success of any organization. The Communication and Engagement team are the persons responsible for the dissemination of information both internally and externally. When it comes to executing a project such as training and development assessment, ensuring that all stakeholders are aware of what is happening and the role they play in the evaluation process contributes to the success of that evaluation process. As the name implies, it is not just about communication but also about engaging the members who can assist in resolving problems, preventing confusion, promoting inclusivity, fostering innovation, stimulating growth, fostering collaboration, and even giving everyone a voice. Information can be transmitted in numerous ways depending on the message and audience. Some communication channels can include one-on-one meetings, group meetings, virtual communication, or even through documentation such as memos, newsletters, and booklets/ brochures.

Budget

Table 12: The budget for running ROI.

Levels	Description	Cost/Cost required for Raw Materials
Level 1 Reaction <ul style="list-style-type: none"> ○ Develop objectives of the solution ○ Develop evaluation plan 	HR Personnel, approvals and capacity are all required at this stage. The cost acquired for development. E.G., raw materials	\$5,000
Level 2 Learning <ul style="list-style-type: none"> ○ Data collection during solution implementation 	Databases capability, communication infrastructure and ICT tools and equipment.	\$50,000
Level 3 Application/ Implementation <ul style="list-style-type: none"> ○ Data collection after solution implementation 	ICT tools and equipment, HR (manpower)	\$20,000
Level 4 Impact <ul style="list-style-type: none"> ○ Data analysis 	System infrastructure, databases, and HR (manpower)	\$0
ROI <ul style="list-style-type: none"> ○ Reporting 	HR (manpower), system infrastructure, databases and communication infrastructure	\$15,000
TOTAL		\$90,000

The budget is the financial plan for how the resources for this project will be allocated. To be as cost-effective as possible, we would have utilized the information collected from the resource-based analysis that was done earlier in this study, to determine what would be needed at each stage of the ROI process. As such, wherever, it was possible to utilize the already

existing resources that the Ministry has, was taken into consideration and fitted into the areas where applicable.

- **Level 1:** Reaction which represents the initial planning stages of the ROI process, the main financial item would come under the raw materials needed at this stage.
- **Level 2:** Most of the funds would be needed in manpower/ IT experts to carry out the systems development and implementations.
- **Level 3:** Application/implementation involves mainly data collection and resources need would be in the IT and HR personnel to execute.
- **Level 4:** Impact would utilize the human resources already on hand; and
- **Level 5:** ROI, the main component would be that of data delivery, in which funds would go into communication.

RISK MITIGATION FRAMEWORK

The Risk Mitigation Framework is designed to establish the potential risks, indicators and mitigation practices to better help improve the ROI, GAD, MNS.

Table 13: Risk Mitigation Framework

Levels	Risk	Mitigation Strategy	Risk Outcome	Risk Owner
Level 1	Technology	Late delivery of hardware or support hardware for data collection	Increase the number of staff recording data	Permanent Secretary
Level 2 and Level 3	Feedback Sessions	Feedback surveys can be the change agent in evaluating training and development effectiveness and efficiency.	Evaluating the ROI will impact project and change related duties necessary for improvement within the GAD, MNS	Deputy Permanent Secretary
Level 5	Training Delivery	Measuring the Effectiveness of Training and development	Update training approach	Director, Human Resources

The risk assessment is an important part of the evaluation process as it seeks to identify the potential risks that can be encountered while carrying out the project activities. The risk assessment analysis is informed by the information coming out of the strategic analysis and assessment section of this paper. Essentially it helps in deciding what measures can be put in place in to mitigate/ or even control the risks than can potentially arise. In this instance the risk identified where in the areas of technology, feedback, and training delivery. Indicators were identified as to what the potential problems that can arise in these areas and the measures were stated of how they would be remedied.

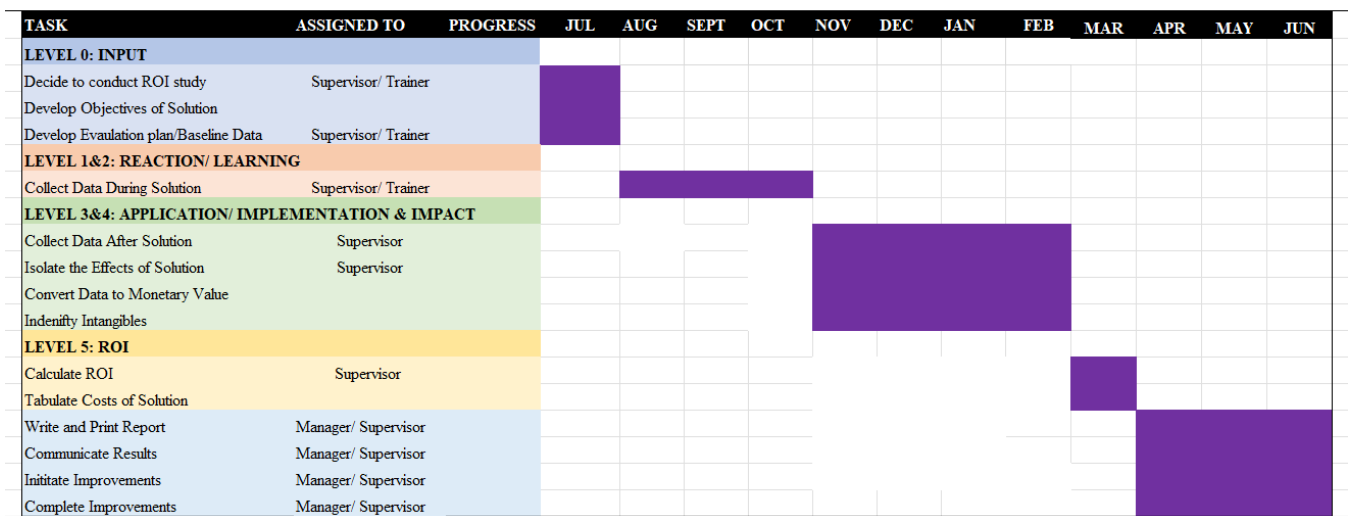
HR Project Plan Timeline

Below is an illustration of the step-by-step process on how HRU, within GAD can implement the evaluation plan that focuses on the collection of data, using the Phillips ROI model to evaluate the effectiveness and efficiency of training and development programs issued.

Figure 13: HR Project Plan Timeline

K&S HR Consultancy

Project Start: 01/08/2023



Above is an example of a structured evaluation project plan, detailing each step of the evaluation, represented in the form of a Gantt chart. The plan shows the objective of each level and is highlighted, and it measures collection method, sources of data, timing and responsibilities are itemized and made easy to follow. One of the main features of the plan is the outline of the timeframes that each level will potentially take to perform.

Implementation Process

Implantation-HR Plan Process

MONITORING AND EVALUATION

The Monitoring and Evaluation of the HR plan is essential in determining the impact of the HR- plan and its outcomes with the use of the ADKAR Model as the framework. The team responsible for the oversight of implementation of this HR- Plan is shown below

Table 14: Monitoring and Evaluation Team

Monitoring and Evaluation Team						
Position	Monitoring Responsibility	A	D	K	A	R
Permanent Secretary	To established procedures that promote involvement and two-way communication	•	•			
Deputy Permanent Secretary	Selecting change agents who will both publicly support the desired change and naturally connect with individuals who will be impacted	•	•	•		
Director, Human Resource Services	Providing employees, the time and support they need to learn new skills and adopt new procedures.			•	•	•
Senior Human Resource Officer	Assessing the employee's ability to implement the new skill and impact as change agents		•	•	•	•
Human Resource Officers	To develop modification techniques that strengthen rather than stifle growing support.			•	•	•

Monitoring and Evaluation

The RACI Matrix will be used as this study's Monitoring and Evaluation framework. The Responsible, Accountable, Consulted, and Informed will guide the evaluation of the HR- Plan. The RACI was chosen because it is the approved monitoring and evaluation framework MNS uses. The RACI will assign the roles and work necessary to perform in the HR- Plan. The RACI Matrix was published by three Norwegians in 1984, and there is no actual inventor (Miranda, 2022). (Forbes, 2022) reported that RACI is the most famous tool project managers use worldwide. The chart is designed to communicate a smooth workflow. Each tenet is described as follows;

R- Responsible - Responsible for designated tasks as assigned directly to the person/group.

A- Accountable- The person/group delegates and review the task/ work. They are also responsible for the monitoring the Responsible person and ensuring accountability.

C - Consulted - Consulted persons are involved in providing input and feedback to the work being carried out by the project. They are in a position to make an impact on the outcome of this project because it could influence their work going forward. Prior to the initiation of a task for which they would be consulted on their request, in order to give them feedback about its results, project managers and teams should consult those stakeholders during each stage of work and at the completion of tasks.

Table # 15- Monitoring and Evaluation Plan (RACI Matrix)

I-Informed – These individuals need to be informed of the project but do not engage in any decisions or tasks within the project. The HR will inform the framework of the RACI- Plan

Strategic Objectives	Tasks	KPI	Owners				Initiatives	Targets
			R	A	C	I		
Enhanced employee capability through utilizing the full Kirkpatrick formula	Improve Training and Development	Data Collection	S H R O	S H R O	D P S	P S	Higher skilled employees	To develop modification techniques that strengthen rather than stifle growing support.
- High Quality Human Resource Services by data collection and increased feedback	Reduce employee Turnover rate	turnover rate	D H R S	S H R O	D P S	P S	Higher employee engagement	Selecting change agents who will both publicly support the desired change and naturally connect with individuals who will be impacted.
-Optimize Human Resource service through different channels Such as on-the-job training	Increase Employee Satisfaction	Employee satisfaction survey in alignment with the project	S H R O	D H R S	D P S	P S	System efficiency	Assessing the employee's ability to implement the new skill and impact as change agents.
- Maximize Human Capital Development - Minimize Human Resource Cost using ROI	Reduced Customer Complains	Measuring ROI of Training and Development - Phillips Five level	D P S & P S	D H R S	S H R O	P S	Reduced customer complaints	To established procedures that promote involvement and two-way communication

section of this study and guide the monitoring and evaluation. The categories described will evaluate the HR- Plan's implementation as well as monitor and evaluate its effectiveness—the Objectives. Using the RACI Framework to monitor and evaluate will help accurately measure the performance goals and improve communication. Each tenet will be explained below:

In respect to monitoring and evaluation, the RACI Matrix identifies each Strategic Objective, outlines each assigned task and KPIs. The KPIs act as the benchmark that will assess whether the strategic objectives are being met. In addition, the expected outcomes will assist in further determining whether the strategic objectives have been met as explained in detailed. Each KPI and task has a respective owner, this is highlighted using the RACI matrix of Responsible, Accountability, Consulted and Informed.

STAKEHOLDER ANALYSIS

The stakeholder analysis will inform the responsibilities necessary to undertake improving the Return of Investment of training and development effectiveness and efficiency.

Table 16: Stakeholder Analysis

Stakeholder	Deliverables	Achieved Yes/No
Permanent Secretary	<ul style="list-style-type: none"> • Increase funding of relevant training methods and the needs of staff. • Prioritizes the needs of Human Capital • Development needs 	Yes
Executive management	<ul style="list-style-type: none"> • Increase awareness of staff morale • Understanding behaviour and attitudes towards work • Increase communication methods. • Improved policies • Increase staff satisfaction. 	Yes
Human Resource Officers	<ul style="list-style-type: none"> • Develop the necessary metrics needed for measuring individuals. • Increase staff morale and work ethics. • Training assessment needs • Sustaining developmental goals of the human resources 	Yes

	<ul style="list-style-type: none"> • Outcomes of returns of training 	
Clerical	<ul style="list-style-type: none"> • Improved commitment and responsiveness of the public needs • Better environment for staff engagement and productivity 	Yes
Secretarial	<ul style="list-style-type: none"> • Improved commitment and responsiveness of the public needs • Better environment for staff engagement and productivity 	Yes

As shown above Table 16, the intent of this study was to improve ROI Training and Development effectiveness and efficiency within the GAD, MNS. There were areas that were not delivered. These areas were not delivered and be considered for future studies. As we now understand the possible risk and measures that can be taken into consideration for the measuring of the Return of Investment, we will look at future studies within performance Management and increasing staff efficiency.

Table 17: Future Studies

Future Studies	Period/Timeline	Deliverables
Improved commitment and responsiveness of the public needs	3- 6 months	Implementing Brinkerhoff’s Model will help identifying the skills gaps and organizational goals accurately
Improve Policies	6-9 months	The Goal Setting Theory- Goal oriented theory for performance management
Increase communication methods.	3-6 Months	Nudge Theory of Behaviour to improve communication
Better environment for staff engagement and productivity	3-6 Months	Innovation theory to improve staff engagement

CONCLUSION

This study highlighted the benefits of determining the Return on Investment in Training and Development using the Kirkpatrick Model and the Phillips ROI as the conceptual model to improve training and development efficiency and effectiveness of training and development. In conducting this study in the HRU, GAD of the Ministry findings suggested that the ministry only applies two levels of the Kirkpatrick Model. In addition, evidence suggests that all levels of the Kirkpatrick model affect's learning. The results showed that the ministry needs to implement more measures to evaluate its training as well as utilize the full implementation of the Kirkpatrick Model.

REFERENCES

- Akhtar, Shahzad. "Decline of Insurgency in Pakistan's FATA." *Asian Survey* 59, no. 4 (August 2019): 693–716. <https://doi.org/10.1525/as.2019.59.4.693>.
- Alagan, Güldal Büyükdamgaci, and Nüket Yet[idot]ş. "Defining Strategic Objectives: A Methodology Suited for Public Organizations." *Total Quality Management & Business Excellence* 17, no. 6 (July 2006): 669–84. <https://doi.org/10.1080/14783360600594172>.
- Amit, Raphael, and Paul J. H. Schoemaker. "Strategic Assets and Organizational Rent." *Strategic Management Journal* 14, no. 1 (January 1993): 33–46.
- Andries Du Plessis, Jeff Marriott, and P. Manichith. "Key Capabilities for Strategic Leaders in Lao Commercial Banking Sector to Maximise Competitive Advantage" 16, no. 1 (December 1, 2014): 56–67. *priority_high* Name of journal
- Channon, Alex. *Global Culture and Sport Series: Global Perspectives on Women in Combat Sports*. Basingstoke, Zulu: Palgrave Macmillan, 2015.
- Creative Commons. "Creative Commons — Attribution 4.0 International — CC by 4.0." [Creativecommons.org](https://creativecommons.org/licenses/by/4.0/), 2016. <https://creativecommons.org/licenses/by/4.0/>.
- (Diagram taken from Sauders et.al. 2019)
- Jasson, Cashandra C., and Cookie Govender. "Measuring Return on Investment and Risk in Training – a Business Training Evaluation Model for Managers and Leaders." *Acta Commercii* 17, no. 1 (January 31, 2017). <https://doi.org/10.4102/ac.v17i1.401>.
- Johnson, Gerry, Richard Whittington, and Kevan Scholes. *Fundamentals of Strategy*. Harlow, England; New York: Financial Times /Prentice Hall, 2012.
- KINGDON, MARGARET A., and CAROL A. BLIMLINE. "Evaluating the Effectiveness of Career Development Training for Women." *The Career Development Quarterly* 35, no. 3 (March 1987): 220–27. <https://doi.org/10.1002/j.2161-0045.1987.tb00916.x>.
- Kurt, Serhat. "Kirkpatrick Model: Four Levels of Learning Evaluation." *Educational Technology*, September 6, 2018. <https://educationaltechnology.net/kirkpatrick-model-four-levels-learning-evaluation/>.
- Mattson, Susan. "Working toward Cultural Competence." *AWHONN Lifelines* 4, no. 4 (August 2000): 41–43. <https://doi.org/10.1111/j.1552-6356.2000.tb01192.x>.
- Medina, L., E. Acosta-Pérez, C. Velez, G. Martínez, M. Rivera, L. Sardiñas, and A. Pattatucci. "Training and Capacity Building Evaluation: Maximizing Resources and

- Results with Success Case Method.” *Evaluation and Program Planning* 52 (October 2015): 126–32. <https://doi.org/10.1016/j.evalprogplan.2015.03.008>.
- Montalbano, Pierluigi, Silvia Nenci, and Carlo Pietrobelli. “Opening and Linking Up: Firms, GVCs, and Productivity in Latin America.” *Small Business Economics* 50, no. 4 (July 29, 2017): 917–35. <https://doi.org/10.1007/s11187-017-9902-6>.
- Moore, J. I. *Writers on Strategy and Strategic Management: The Theory of Strategy and the Practice of Strategic Management at Enterprise, Corporate, Business and Functional Levels*. London: Penguin, 2001.
- Phillips, Jack J, and Patricia Phillips. *Handbook of Training Evaluation and Measurement Methods*. Butterworth-Heinemann, 2011.
- Phillips, Jack, and Patti Phillips. “The Business Case for ROI: Measuring the Return on Investment in Human Resources,” 2004. <https://roiinstitute.net/wp-content/uploads/2017/02/BUSINESS-CASE-IN-HR-Website-12-2004.pdf>.
- Phillips, Nelson, and Cynthia Hardy. *Discourse Analysis: Investigating Processes of Social Construction*. Thousand Oaks, Ca: Sage Publications, 2002.
- Ravi, Dr. *Strategic Management (for MBA)*. Shanti Publication, 2020.
- Steiner, Dirk D., Gregory H. Dobbins, and Wanda A. Trahan. “The Trainer-Trainee Interaction: An Attributional Model of Training.” *Journal of Organizational Behavior* 12, no. 4 (July 1991): 271–86. <https://doi.org/10.1002/job.4030120403>.
- Teybeh, Abbasi. “Analyzing Organizational Structure Based on 7s Model of McKinsey.” *International Journal of Academic Research in Business and Social Sciences* 5, no. 5 (2019): 2222–6990.
- Torben Juul Andersen, and Peter Winther Schrøder. *Strategic Risk Management Practice*. Cambridge University Press, 2010.
- “Training and Development,” 1998.
- Trinidad and Tobago. *The Ministry of National Security*, 2001.
- Williams, Rachele C., and Fredrick Muya Nafukho. “Technical Training Evaluation Revisited: An Exploratory, Mixed-Methods Study.” *Performance Improvement Quarterly* 28, no. 1 (April 2015): 69–93. <https://doi.org/10.1002/piq.21187>.
- Wisshak, Susanne, and Sabine Hochholdinger. “Trainers’ Knowledge and Skills from the Perspective of Trainers, Trainees and Human Resource Development Practitioners.” *International Journal of Training Research* 16, no. 3 (September 2, 2018): 218–31. <https://doi.org/10.1080/14480220.2018.1576327>.
- Zig Ziglar, and Kevin Harrington. *Top Performance: How to Develop Excellence in Yourself and Others*. Grand Rapids, Michigan: Revell, A Division of Baker Publishing Group, 2019.
- Wisshak, Susanne, and Sabine Hochholdinger. “Trainers’ Knowledge and Skills from the Perspective of Trainers, Trainees and Human Resource Development Practitioners.” *International Journal of Training Research* 16, no. 3 (September 2, 2018): 218–31. <https://doi.org/10.1080/14480220.2018.1576327>.