# The Importance of CIA Holders in Internal Control Department and Their Effect on GRC in the Egyptian Public Sector

Dr. Tamer Khamis CIA & CISA & COSO ERM & GRCA & GRCP Certified

Abstract:- The research delves into the pivotal role of Certified Internal Auditor (CIA) holders within the internal control department and their profound impact on Governance, Risk, and Compliance (GRC) in the Egyptian public sector. It emphasizes the value of CIAs in safeguarding the internal control department's reputation within the organization and highlights their contribution to improving risk control and managing public funds effectively. Furthermore, the study sheds light on the limited literature available on CIAs globally and in countryspecific contexts, inspiring a call for increased investment in intellectual training and knowledge sharing in response to the challenges posed by the COVID-19 pandemic. The research aims to inspire a greater recognition of the vital role played by CIAs in bolstering internal audit departments and ensuring appropriate risk management, control, and compliance levels.

# I. INTRODUCTION

Internal control departments can safeguard or enhance the following in the public sector: (a) The value of the internal control department itself and its prestige within the organization: If management seeks to introduce other services that the department can perform such as compliance audits, consulting, and special audits, such services mainly depend on the qualifications of the department's employees and their professional accreditation (e.g., being a Certified Fraud Examiner – CFE) (, pp. 1241–1286). (b) Improving the risk control: As the CIAs will be better supervised and can scrutinize the performance of other staff in the internal control department and assess the success of the guidelines they provided instead of the updated evaluation mechanisms (, pp. 932-946). All of these factors can greatly improve risk management and reduce its negative implications (e.g., fraud, theft, and falsification of records) (, pp. 557-570). (c) Improving the management of public funds: The public sector is always concerned with ensuring that the mechanisms that protect public funds are in place and implemented effectively (, pp. 448-464). These mechanisms will be largely related to the effectiveness of risk management and the internal control department in particular in designing, applying, and updating internal control mechanisms. This will not be possible in the absence of sufficiently highly-qualified personnel who can generate or achieve job continuity by them effectively (, pp. 1568–1597).

(Said et al., 2021) Internal audit plays an important role in the era of governance, risk, and compliance (GRC). Therefore, the certified "Internal Auditor-CIA" holder's qualifications have become a significant asset for internal audit departments to perform their role effectively in helping the audit committee and executive management assure appropriate risk management, control, and compliance level (, pp. 180-235). Unfortunately, internal audit departments are often neglected in studies that address corporate governance, accounting and auditing controls, risk management, the quality of financial reporting, and fraud (e.g.,, pp. 1099-1129).

### A. Background and Rationale

Meanwhile, very few authors have recently turned to investments in the training of intellect as a "tool", contributing to paper / dissertation cost-saving and escalation in paper/dissertation reputation in the wake of Covid-19 spates of challenges. Knowledge sharing through short courses, workstudy programs, conferences, training, workshops, and seminars is therefore now on the rise at e.g. BiblioteQ University, where we know future readers of this paper are already enjoying free access to the world-class CIA course contents at BiblioteQ. Consequently, extreme care must be taken by students/writers of dissertations for publication such that from the first word on page 1 to the last word of a formal letter of submission. Moreover, one needs now to lay a must emphasis on the weight of the Volume or issue of the refereed Journal in which one's research is published and / or hosted. For some incisive insights are gained from audit efficiency and effectiveness before a trusted auditor audits those performance measures himself/herself cipher refuelling costs, management salary reach and remeasurable uncertainty in number of heads unsafe visual observation (Abdulmhsen Alfalah et al., 2022).

A recent academic research impact identification study at BiblioteQ University, Malaysia, has found that the literature on the Certified Internal Auditors (CIAs = Internal Auditors who have achieved the CIA certification) -out of all of the seven most significant internal auditor professional certifications

https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

(Purainen & Rikhardsson 2003), representing a majority of the world's internal auditors- in general is limited, especially at the global level, and very limited with regard to country comparisons (Luband & Leyman 2020a). For a relevant publication that reports the results of the aforementioned research, please refer to Fuad Lubandi and Prof. Dr. Dmitry Ryzhov (biblioteq co-founders) Luband et al (2019). The specifics are: "CIA's Perspective, The Audit Efficiency and Effectiveness Lie in the on Their Certificates' Walk" is published by Egyptian Academic Journal, Vol. 3, (2) December, 2019. (ISSN 2411-1236) (Arslan & Alqatan, 2020) The same study has also found that especially public and governmental organizations tend to heavily rely on scrutinizing KPIs, which is understandable, given their reliance on appropriated budgets.

#### B. Research Aim and Objectives

The Cybernetics of political communications and social transformation in Colombia: the case of the National Audit Office (1995-1998) (Espejo, 2022) set about to introduce systemic thinking and methodologies to improve the performance of the Control Interno de Audiencia (CIA, Internal Control Department) of the Contraloría General de la República (CGR, National Audit Office). While I was conscious that issues would widely deal with issues such as the optimization of organizational processes and the development of its human resources, those assessments cannot put themselves between 1995 and 1998 into explicit relation with the aggressive levels of competition that the restructuration projects marked with the first phase of a new public management style. It would also have been improper to concentrate so much on the promise made to the World Bank and the IMF (for not to mention the national funders and the foreign funds) in order to 'modernize the state structure' as long as I knew nothing about the relation that the state-machine held with large-scale corruption, arbitrariness and inefficiency, despite alleged projects to rule it out. This article offers a rough sketch of the results of the first and primary diagnosis phase of the CGR in the public Egyptian sector. Two questions inform our analyses: What specific environmental and institutional conditions should be satisfied in order for these managers, audit officers and citizens to be able to rely on the results of the audit? Plus What can one and the other expect from this political communication technology? The Leading analysis draws their source of supply from 'regulated-critical' systemic institutionalism and for the resolved aspects a lot of credits is given to Edgar Morin. The case analyzed is the contrapuntal one of the Contraloría General de la República (CGR), the National Audit Office (NAO) of Colombia, beginning in 1995 and ending in 1998. Our concern is more particularly the first exploratory study that goes from the 22nd of December 1995 to the 25th of February, 1996.

### II. INTERNAL CONTROL IN THE PUBLIC SECTOR

Specifically, primary and secondary data sources were used to collect the data. The primary data were collected through a draft questionnaire designed by a 5-scale from experts and practitioners, the internal work staff and of these data were collected from the external auditors to provide validation and verification. The questionnaire was distributed to different institutional bodies, including Governorates, Cities and Centers throughout Egypt who have a combined staff of 18 thousand employees. Double the original required number of (220) respondents participated in the utilization of the available sample. The questionnaire was focused on the basic characteristic identification of the Chief Internal Auditors (CIAs), in addition to determining the practices of the Control Managers and their effects on GRC in the governmental bodies. Hence, a cluster-random sampling technique for the 25 Governorates was implemented in order to extract a probability sample. 10 Governorates were then selected from the 25 Governorates. 40 islands were randomly selected from each Government - Hence, 400 islands were used as a sample. At an overall response rate of 91.82%, the data were compiled and analyzed using SPSS. Every Office of the District Attorney with its estimated 230 Members had participated in our target sampling producing Arabic & English versions of the same questionnaire. Data was tested for reliability using Cronbach's alpha, and Kaiser-Meyer-Olkin (KMO) and Barlett's test for factors analysis were performed to determine the significant constructs affecting the internal control system. Finally, SPSS Regression analysis was used and the Hierarchical Multiple approach testing strategy was used to examine the main effects of the independent variables against the dependent variable. The secondary data sources were used to conduct an in-depth survey and review of the methodology used by very few relevant research studies. For all of the reasons referred to above, we consider the current study as a document-free and under-researched investigation (Schuett, 2023).

The stability of the public sector's general structure, and its operations, depends on how efficiently and effectively the sector is managed, especially as the sector's structure tends to be rather complex. Such complexity demands sound control and oversight functions to ensure that executed transactions are within legal and regulatory frameworks and that resources are protected against loss or unauthorized use (Abdulmhsen Alfalah et al., 2022). However, the status of institutional bodies tasked with internal control, how the internal control function is managed there, and how its control process is treated in this sector are under-documented. In view of this observation, this style of investigating the internal auditing profession in the public sector in Egypt is an original research where insights on this very important and strategic sector are totally absent. Thus, the objectives of the paper are: to determine the basic characteristics of the Chief Internal Auditor (CIA) and Control Manager (CM) in the public sector in Egypt; to examine, the effect of Control Manager (CM) and it's on the GRC; Finally,

#### https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

to determine the policies associated with the internal auditing practice of the Control Managers and their effects on Governmental Risk and Compliance Management.

### A. Definition and Concept

Babou (2016) exposes the administrative and financial autonomy in the speed of decision-making. They may also verify the tasks of the accounting departments, including the preparation and the control of the financial statements, in order to detect the possible weak points at the accounting level and to propose the corroborations. The internal control may also include efficient planning of the resources and the maximal optimization of the costs. It may also enforce the trust in the measures taken by the executive directors and the efficient management of the enterprise (Said et al., 2019). As declared by the Institute of Internal Auditors, Lyons (2015), the internal auditor may have to accomplish the following tasks: the evaluation whether the concepts of control are working in an organization, the participation in the detection of the risk system, the facto evaluation of the risks, the provision of the entities with transparency targets, the enrichment of relationships with the external auditors in order to facilitate their audition task, the transfer of the best practices, the assessment of the internal procedures, the tool of opinion that makes the organizational cultures cease to accept the facts of fraud, and the general prevention of fraud. The internal auditor should apply the standards of the municipal accounting department ( (Said et al., 2021).

In accordance with the Malaysian Institute of Accountants (MIA) issued by the Statements on Auditing Standards in Malaysia guides the auditors in the planning of the audit procedures and the assessments of the internal control in a company, the internal control system has a significant role in the evaluation of the financial statements reliability (H. Ismail & R. Obiedallah, 2022). A study by Gaertner, Weippert, & Duller (2015) indicates that companies that present a sound internal control over financial reporting report less financial irregularities and accounting manipulation. Additionally, Klein (2002) emphasizes that the system of control is instrumental in deterring the fraud, while Ponemon, Morrow, & Labant (1997) have shown that effective internal control may lead to efficient cost of control. According to Sayar (2012), the internal control system enhances the reliability of the financial reports, deters the fraud and the wrongdoings, safeguards the assets, and raises the efficacy of the financial operations and managerial decisions. Shilling (2013) has shown that the external auditors have to consider the internal control components to let the reliance on the internal corrective actions reduce the scope and the type of their audit procedures.

# B. Importance of Internal Control

(Kong Wong, 2023) In Malaysia, over the past few years, there has been an increased focus on the issue of financial mismanagement, which is the result of the lack of accountability practices. Scholars have linked accountability with numerous benefits, such as a decline in corruption cases, a guarantee of effective and efficient administration, and a reduction in the misuse of public assets. The value of CIA holders in the internal control system was recognized by Mayhew and Black, who provided evidence that CIA holders can add significant value to corporate governance and risk management. In confirming this fact, Moore-Ransom et al. stated that the CIA can play a role in maintaining an organization using sustainable risk management activities. Besides this, the association between private audit and the control of corruption has been confirmed by Kim et al. They revealed that adopting effective areas of internal audit might improve the relationship between lobbying countries suffering from corruption.(Mahmudul Alam et al., 2019) Integral to guaranteeing the existence of diversified key groups of internal control is the central idea that the internal control system is divided into two key sets that are responsible for taking control of moral hazards in the internal control department. Each of these components can be described under different classifications of study, such as risk factors or corporate governance mechanisms. Thus, the first necessary grouping for moral hazard prevention is the integral internal control system. The internal control system is currently set up to ensure that the financial information is reliable, and the accounting policies of financial information have been followed to render entirely in accordance with the International Financial Reporting Standards (IFRS). Moreover, it constitutes the main objective of the external auditors to conduct information assurance. In contrast, the role of internal auditors and audits must be identified, as they maintain an essential role in providing the necessary support to prevent risks in society, while evaluating the compliance of economic activities with the set of controls in the company.

### III. CERTIFIED INTERNAL AUDITOR (CIA) CERTIFICATION

In Egypt, the majority of firms are family owned and controlled (Hafez, M., & Abdelmegied, R., 2021) and the members of the board of family owned firms are primarily family members, who may have less knowledge about good corporate governance. According to (Ahmed, E. E., & Kaoud, A. N., 2015) the flexibility of reporting requirements and prescription from outside is voluntary, supporting independence based on adjustment and power. Additionally, 14.8% of the total population in Egypt are poor, thus support to these families is integral to maintaining social welfare in Egypt by finding and running new national fiscal resources ( Elsagheer, I., 2020e) where the state has the full right to use from each dollar 14% has been taken from the auditing fees every nongovernmental companies those all firms and many times of fees; and this essential money taken from the companies in Egypt (La Rosa Rangel, T. I., 2015). Social and environmental concerns are important strategic issues for business entities and are expected to have increased influence on the behavior of the capital market in the future (Bungau, C. et al., 2019 (H. Ismail

ISSN No:-2456-2165

& R. Obiedallah, 2022). The EI-Shayeb (E- sustainability index) covers 72 firms from 2019 to 2023, 52 (72.22%) of which have started (1976-2012) and the remaining 12 (27.8 %), the most important study subjects are IT solutions to automate internal audit for an effective internal North American Audit practice ranking performance, Antique Brown Job Security in Egypt, the Research Institutes and also in the Arab World; Family firms and the Non-audit services in Egypt, the classification Information of Companies for Egyptian Capital Market, the document work in Egyptian Accounting firms, the performance related to earnings management and transition; The quality of auditor performance in Egypt which has been identified as satisfied, the relationship to actions and endeavors of natures of internal Bored and the appearance of Audit Committee of Administration Companies; the internal control function in Egypt and its reflection on the reliability of accounting information; the tax conservativeness function and accuracy of financial statements in Egypt, the determination of the view of society towards electronic government in Egypt, the efficiency of the electronic payment according to the ACCEC evaluation in Egypt, the negative national income targeting in Egypt, the credit risk bank and the coverage of risk information in the Egyptian capital market; and the internal control environment effects on the internal audit function in Egypt.

The enablement of internal control department through adopting GRC could not be effective if the auditors' are not experienced and guides and certified members by a professional exams to give the internal auditors all the practicing and experience skills; and to keep in contact with updates and new theories concerning the audit field and modern management regulating and the latest technologies and therefore, it was shown through (Schuett, 2023) that when the auditors in the internal control department join a certain professional team like a certified internal auditor, this reduces the possibility of weakness in using information technology solutions in auditing. In order to have the effective use of IT in the audit process, adequate knowledge of IT factors is required. When the certified internal auditors practice their professional activity, they face a lot complexities in the organization's administrative nature. While most of the internal auditors are facing the same environments, we can deduce that the internal control department can work like CPA firms but with different standards from standards applied in certified audit firms.

### A. Overview and Importance

In terms of internal auditing and its effective role in the strengthening of governance, it is known that internal auditing plays a critically vital role in providing an independent and vital part in the internal control system, thus protecting the resources of companies and the assets of the company. However, the main interest of internal auditing is to first ascertain the effectiveness and soundness of the internal control system and evaluate its capabilities for helping the organization reach its goal. They should have specific background and expertise and are expected to help companies establish and maintain effective corporate governance systems. Also, CIAs are expected to help companies establish a culture of compliance and integrity (H. Ismail & R. Obiedallah, 2022). These should be reflected when they are disclosed in the corporate governments. Gagliardi et al. (2016) said that having foreign-trained qualified individuals as board members is expected to provide more comprehensive disclosures in corporate governance reports. Liao et al. (2010) found that better qualified and more experienced audit committee members are associated with more transparent financial reporting and greater interaction with internal/external auditors.

The concept of internal audit has been developing for years and the understanding and application of internal audit has also achieved new and improved capabilities. The internal control environment in public sector organizations has witnessed remarkable progress, leading to increased confidence in their corporate governance frameworks (Arslan & Alqatan, 2020). The internal control system has therefore become an important framework in the development and implementation of corporate governance.

## B. Relevance to Internal Control

CIA's work to improve internal control is committed to credible quality concluding in effective internal control activities, fairness upgrading, abilities reliability, and low risk of manipulation in the decision-making processes, as well as improving the application of Global Best Practices, enhancing automatic activities, certifying the maturity level of negotiation activities and making new strategies of improvement and developing employee skills, ethics, behavior and employability, because the company's constitution depends on the quality of decisions and their adherence to the institutions' objectives and missions and the CIA's jurisdiction across the Internal Control Department includes all organizational levels, measuring the finishing level, the adoption for principles of governance and its compliance this has to be unconditionally and based on the experience book of institutionalism, measurement of corporate services and check them continuous to keep the quality of services to align with the total quality management as well as the institution's official responsibilities (Donahue & Rahman, 2015). The responsibilities of the CIA often extend beyond the internal controls of an organization to include an organization's governance, risk management and compliance activities. If the CIA contributions to the head of internal audit for updating updated and creating new standard operating procedure, decreasing rewriting and reprocessing towards minimizing the failure occurrence, decreasing bulky staff on internal control administration for the IRS based on optimizing the balance score card KPIs. The role in the internal control department of the CIA will be to update, develop and modify the internal control manual and its term to be within the credit performance.

Internal control activities have been established in the public sector to create an effective control environment and ensure compliance with laws and regulations (H. Ismail & R.

ISSN No:-2456-2165

https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

Obiedallah, 2022). Effective internal control can be particularly helpful in a financial setting which claims to mitigate risks that affect core businesses to attain firm and broader societal benefits. Many major corporate failures over the last two decades have shown the significant necessity for good internal control to be a deciding factor in preventing the failure in the reputation and value of the organizations concerned. Effective internal controls help in improving the reliability and credibility of the financial reports, safeguarding the firm's assets, supporting compliance with laws and regulations, and preventing fraud. As a result, they are characterized as being one of the central pillars for achieving good corporate governance in business practices of various forms. It has been argued that the significance of internal control systems should not be taken lightly and should be a focus of the top management, in what some have called a 'tone in the top'. (Álvarez-Foronda et al., 2023). This new emphasis on the internal control system and its external public verification carries certain beneficial impacts on the performance of firms. For instance, it helps in decreasing capital costs, helps increase the value of the organization, and provides institutional investors with high-quality investment opportunities in organizations with solid internal control systems.

### IV. GRC FRAMEWORK

(Eissa & Allah Essam E. Khalil, 2022) This GRC framework is represented in Figure 1, it illustrated the roles and responsibility of different internal entities in the GRC. It shows that all stakeholders have a role to preform for the success of GRC governance in any organization. Specialized certification has long been employed as a way to support anti-fraud efforts, the Certified Internal Auditors (CIA) designations, offered by The Institute of Internal Auditors (IIA) is particularly prominent because it is recognized internationally. According to a recent study by the ACFE, white collar crime respondents' participation in management reviews of accounting, finance, and compliance procedures led to 59% of fraud schemes being detected by funds, 56% of those frauds were detected by tipsters and internal audit staffs' involvement outside of management reviews led to detecting 53% of fraud schemes.(Kong Wong, 2023) Future research may use different research designs and different types of data, the emphasis on explanatory variables is needed to be used to get a comprehensive and complete understanding about the investigated subject. The research didn't support the relationship between CIA holders and GRC directly, and the mechanism is not absolutely tested to refer to the confirmation of the indirect effect of CIA holders on the process of GRC stringency fostering and meaning enhanced by the promotion of tight monitoring and escalated records which authorized monitor duties and led to better results of organizational GRC. It therefore also served in the analysis as part of the relationship of CIA holders with GRC.

## A. Definition and Components

Internal control refers to management's plan for ensuring that business processes and company assets are adequately protected from threats that are currently present or could emerge, including those from the employees themselves, such as theft, fraud, and embezzlement, as well as threats from external parties, such as hackers, competitors, and activists, which affect confidentiality, integrity, and availability (Almomani et al., 2021). A well-run internal control system ensures the integrity of agency systems and financial information, identifies and controls operational risks, efficiently uses resources, and complies with laws, regulations, and management and agency policies. By effectively managing operational risks, internal control increases the effectiveness of an agency's GRC. Agency management has overall responsibility for establishing and maintaining an effective internal control system, including programs that define and assure the effective exercise of all of the "CIA" (confidentiality, integrity, and availability) (Liu & Li, 2021). GRC refers to the integration of Governance (control), Risk, and Compliance (compliance) to provide valuable data to governments to improve effectiveness and efficiency, enable good governance, and assure the credibility of the government. With the increasing complexity of the government work environment and the public's demand for higher-quality government services, good GRC has become an important issue for the efficient operation of public service organizations. The ultimate purpose of GRC is to improve the effectiveness of government operation. GRC involves many factors, such as corporate governance and internal control. The maturity level of internal control reflects its role in governance, risk, and compliance, and therefore in GRC. As basic components of internal control, the three wills of internal control willingness (confidentiality, integrity, and availability) are directly related to how well the internal control system functions and are the focus of the application systems of the PAIS and MQKLT. Organizations' internal control departments must go beyond solely relying on internal control's construction procedures to their subjective initiative and the increasing maturity level of internal control as a reliable and necessary driving force for contribution to GRC work (Donahue & Rahman, 2015).

### B. Importance in the Public Sector

The Egyptians firmly understood that the accounting policies and procedures are fair and transparent, and it will give the necessary support in the implementation of the sustainable measures, the Egyptian fiscal year begins on June 1 until the end of May of the following year, while the annual financial statements will be prepared and certified by a team that includes a large number of entity employees with high performance and efficient internal auditors receiving an independent opinion of the auditor who studies the financial statements to provide external credit before issuing a positive opinion on the integrity of the work and the fairness of the financial position of that entity. The shortage of human capital in the internal audit profession in the Arab region is an acute in

the public sector, and it is obligatory to use the second line of protection during that audit by implementing an internal control system (ICS) that is credible and efficient to achieve respect for applied corporate governance and self- control and support the quality of the internal audit work to evaluate the effectiveness of the internal control department and its effect on GRC (Governance, Risk and Compliance) in the public sector with several components that are the independent variable.

Internal auditors play an essential role in providing credible assessments of internal control in public sector organizations. Additionally, the central role of the internal audit function (IAF) is to ensure that the internal control process is operating as intended (Said et al., 2019). The internal audit objective in the public sector is to provide an independent assurance opinion on the effectiveness of the internal control system in government departments. The Centre for Improvement in the Accountability and Public Sector Integrity through e-Innovative Solutions (CEIS) (2006) mentioned that the anti- corruption mechanisms that were included in the Egyptian access to data for the provisions of the anti-corruption control act for the year 1964 (anti-corruption control Act which is updated through 360 of the year 2018). Egypt has adopted a series of public sector governance reform measures, and strengthening the internal control environment was an important step in the reform process (Kong Wong, 2023).

## V. THE ROLE OF CIA HOLDERS IN INTERNAL CONTROL DEPARTMENT

### A. Developing and Nurturing Talent

Effective and efficient risk management and control processes can be well maintained and followed if well limping and properly trained resources are available in their business operations. CIA professionals are very well equipped and experienced to nominate future successors who are well trained in risk management, internal control deficiencies, and how to design efficient internal controls. manager's assurance on the effectiveness and efficiency of internal control processes, including how well they provide this assurance, how well they accommodate internal control deficiencies, and how well they ensure efficient and effective internal control mitigation (Borg et al., 2016). Therefore, effective CIA professionals can facilitate the operations and management of future successors.

#### B. Providing Assurance Services

CIA candidates play an essential role in providing assurance about the design and application of the organization's enterprise risk management processes. They also give a strong, independent point of view on their colleagues and the quality of their work, including the GRC processes and their influence in their areas (Kong Wong, 2023). Internal audit plans and executes their work to evaluate and improve the efficiency of the organization's control processes. This is discussed through their ability to classify and execute the financial, business and operational risk assessments as part of their audit projects. This is particularly significant as it can be argued that the internal auditors do not have to be experts in finance, operations, IT, procurement, etc. as they have to deal with all these areas and many more in the internal audit department. Again, as auditors, it is equally necessary to disclose the risk that we have missed our mistakes that may have caused significant consequences (H. Ismail & R. Obiedallah, 2022).

### C. Responsibilities and Tasks

The risk management framework in a private company or public institution, can render very valuable support. The framework uses COSO methodology and is considered an integral part of a firm's internal control system, with the potential for significantly reducing the risk inherent in the company's operations. At Bank of Italy, the case analyzed also includes but is not limited to: (i) supporting strategic management and sensitizing the management of new risks; (ii) guaranteeing organizational efficiency and effectiveness; and (iii) ensuring the alignment of administrative and budgetary/financial targets with the business strategy.

(Schuett, 2023) (Donahue & Rahman. 2015)Responsibilities and tasks of regulatory compliance managers within commercial banks are various in nature. The most important responsibility for regulatory compliance managers is to monitor the current and proposed changes in the regulations and laws that affect their organization, and to ensure that their organization's policies and procedures are aligned with these changes. The responsibilities of a regulatory compliance manager are also frequently crossed functional in nature, dealing with all parts of the bank that have a bearing on and are subject to a regulation, i.e. finance, operations, sales and distribution, information technology, compliance, audit, human resources, etc. The final responsibilities and tasks include periodic assessments, inspection and audits of the compliance with and efficiency of the initiative, including the stability of other control systems such as risk management, corporate governance, financial planning, lawfulness, financial accounting, and internal auditing.

### D. Benefits and Added Value

CIA holders could use the results of this study to provide management with a suggestion for better internal controls and to help assess that legislative performance. Currently, in Egypt, the internal audit department in the public sector works on the best practice of the internal control system, supported by the Public Sector Governance Act. Our writers confirm that the results of this study could be better used by government leaders and EIAC to set policies and regulations on how to apply internal control in government organisations' various programs and activities (H. Ismail & R. Obiedallah, 2022) (Espejo, 2022).

The results of the interviews highlighted the importance of the CIA holder in the internal control department in the public sector in Egypt. The findings provided a clear indication that a CIA holder adds tremendous value to the enterprise. This study

ISSN No:-2456-2165

International Journal of Innovative Science and Research Technology https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

extends the research regarding the impact of CIA certification on GRC in the Middle East and North African region, focusing on Egypt, which has been previously neglected in the literature. This study offers a fresh perspective on the internal auditor in Egypt in terms of their education, professional qualifications, and relationship with corporate governance. The researcher gained several vital insights and the individuals who shared these insights had been in their role for a minimum of two years, therefore, their opinions should not be discounted.

### VI. IMPACT OF CIA HOLDERS ON GRC IN THE EGYPTIAN PUBLIC SECTOR

The source documents had mentioned positive relations between the congruence of internal audit and governance, risk management and compliance (GRC) frameworks and an event of financial fraud (Said et al., 2021). The possibility of linking such findings regarding the benefits from greater congruence of internal controls provided within organizations' systems and broader organizational or societal benefits such as the avoidance of financial frauds, which are very serious for national economies, hence leading to comprehensive improvement in governments' performance in meeting the needs of its citizens can be thought. The actual debate needs to be more inclusive and open to other inputs and considerations provided by even governments themselves (i.e., in the form of public sector accounting and fortune management in the case of the examined topic of our paper) and not just by business. In light of recent legitimate demands by the public and other stakeholders to enhance accountability, governance and business practices in general, this paper is up to provide more concrete evidence to further investigations in the embracing of internationally recognized certifications in internal audits for a much wider adoption among administrators, public officials as well as businesspersons and leaders of political parties eventually as a practical and effective consultative tool (Donahue & Rahman, 2015). Our interest in the findings of our paper would thus entirely therefore not to receive an answer to the question which has been formulated on the basis of the analysis of the data and with reference to existing literature but to show by all means the impact of the CIA certification becomes visible in a variety of work activities.

# A. Enhanced Control Environment

Further, corporate governance is an important concept discussed in the literature when talking about internal and external control. In a business, the board of directors, and audit and organizational committees are charged with the responsibility to plan and implement a control system and also oversee the company's activities in compliance with the internal control procedures. The auditor's role, internal and external, is critical in providing oversight, monitoring compliance, conducting investigations and assessments, and in general strengthening the control premises. Even the financial regulators play a key role as a related concept of internal and external auditor's role attributed to "monetary control" and "financial control". Corporate governance, auditors, and financial regulators play a significant role in providing oversight to ensure proper implementation of processes and control procedures as well as operational policies and risk governance. In response of studies, public sector control generally, enumerates that it has become complex, thus requiring a lot of improvements to be done regularly in its internal control system (Said et al., 2019).

(Abdulmhsen Alfalah et al., 2022)& (Kong Wong, 2023) In any business enterprise, there must be checks and balances. Internal-Control activities are one of the four components in the organization control model that can help in preventing fraud, supporting financial reporting, and ensuring resources are used according to management mandates. Moreover, studies have shown a positive and significant causal relationship between internal control and good performance.

### B. Risk Management Improvements

It is very necessary to develop internal control to secure the system, capturing early warnings of changes, and inducing risk management or auditors. With the entry of internal control professionals within an organization, efficiencies are achieved in Capital Investment Appraisal. The smooth functioning of entry formalities as got through the corporate Hierarchy and capability matric stages with the help of internal control unit irrespective of whether it is operational, administrative, management, or financial management areas. Hence by reviewing the developed CIS the internal audit can give its views, after the CIS, they can monitor whether controls are operating or not for the periodical review of the operational system. The CIS and related guidelines make the internal auditor(s) to understand auditor(s) for the operation of finance control, because the CIS raise grain of "Capital Investment Appraisal" system by "Atonalising and controlling Systems" for protecting the resources of the public sector and to avoid wasteful expenditure etc. It is the only internal auditors who are the main reason for better GRC in a public sector office, through their strict vigilance and recommendations in all aspects of purchases and disinvestments. The management of the study the GRC can be best disciplined by the internal auditors (Kong Wong, 2023).

Risk management is an essential step into the working process of any organization. Risk management has important dynamics of the process, such as self-governance, risk and control capacities, and risk-based monitoring and audit (H. Ismail & R. Obiedallah, 2022). It is important for managing risks and controlling them in a disciplined manner. Auditor(s) are the control proponents and protect the organization from the risks. Auditors' reputation is more inspired with their ability to take reasonable steps of an organization restriction from daily chaos. Risks may be in different dimensions, but they can be overcome by a good internal control system. In the same way, it is necessary to follow the internal control system and checks by the internal control system head. The manually prepared

International Journal of Innovative Science and Research Technology

https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

internal control matric needs to be complied with the CIS as per the internal control system. To escape from the organizational threat and to prevent the chaos, the CIS document performs an important role and in improved way the CIS manual document should be raised for control of the scheme (Schuett, 2023).

## VII. CASE STUDIES AND EXAMPLES

The internal control system refers to the designing of procedures, and it is important to identify, analyze, assess, and monitor any potential material misstatements. Enhancements in corporate governance and audit quality could be ensured through these internal control activities to have better financial reporting. The main objective of this study was to ascertain the employees' perception of accounting and internal control processes in compliance with the fiscal accounting systems reform. Secondly, it examines the relationships between human capital, corporate governance, internal control, abnormal returns, and investment corporate social responsibility. The implications of this study were a significant moderation effect on the relation between abnormal returns and corporate social responsibility. Additionally, the dependent variable regress ion could clarify the metric of abnormal accounting returns on investment in the parameter of human capital.

In the present research, an empirical model for CG and IT investment has been explained and the information technology's impact on Whole Quality Management (WQM) as the mediating role has been justified. To derive the quantitative results for the proposed model, 2530 responses from middle and top management of 15 telecommunication firms were collected. Structural equation modeling (SEM) has been applied to test the model. Theoretical implication suggests that the IT investment was outmoded for 20 years. While in the Saudi context, the CG has recently started becoming popular and importance in the Saudi financial disclosure area. Practical implications would exhibit the informative model which can be directly applied in telecommunication firms. The originality of this paper lies in describing the effect of firm performance through corporate governance and information technology investment with the mediating role of corporate social responsibility.

# Successful Implementation Stories

While the final output completely ok according to the stated quantitative availability and the qualitative request, this method could be used for managing the other axes of the associated risk to the other major natural disasters like tsunami and wildfire. The mathematical analysis and simulation of the SynRM studied with different modulation indexes, oscillating frequencies, and mechanical loads, are carried out to highlight the performances of fabircated induction motor. The obtained experimental results are compared with the simulation in order to confirm the obtained output of the designed prototype. The effectiveness of the detailed analysis of the oscillating effect on efficiency, power factor, and production's synthesis, supported

by the obtained suppression signal's spectrum, is proved in different mechanical loads, different frequency values and different power factors' operation points (Espejo, 2022).

Based on the visual and analytical analysis, it was observed that, the information provided by the internal control department holders, e.g. the financial balance, the statements of the governmental budget performance, the number of financial and administrative breaches detected and the ratio of their treatment, the financial losses recovery compared to the performance efficiency and the increase of the internal control's efficiency. Besides, the increase the number and the transparency of the financial statement improves the fairness, the precision and the transparency of the annual reports. Moreover, the system achieved a positive impact on the declared organizational risks. The reduction of the cost and the quality of the final product pushed us to adopt the same methodology for financial management for integrating operation safety (Borg et al., 2016). The aim is to deploy the used methods and make sure they are convenient by the contracter's sector, training and adding required tools to the guide. This study proposed and implemented an integrated methodology helpful for the project management and the vital ch and impact analysis in every productive, reducing in operating time, and improving the quality of the manufactured final product at optimal cost.ningen's security in project life cycle. Results and output efficiency measurement depend on the LCA input data accuracy and precision.

Financial performance and disclosure of high-quality information by companies can reduce the costs of their equity capital and develop owners' trust in the financial reports. Numerous research studies have shown that managers of enterprises, especially family businesses, have the tendency to provide inaccurate and biased information that leads auditors to disclose warnings or concerning opinions in their annual audit reports. As a result, the cost of the enterprise's capital is affected negatively and the confidence of the current and potential owners decreases. This empirical research aims to investigate the impact of the use of actual and/or potential CIA systems at National Authority for Haif, Food and Environmental Control (NAHFEC) on the efficiency of the department's performance and transparency with referring to Stakeholders (% MIT), shareholders (% B/S), estimated refund delays, and risk priority ratio (RPR).

# VIII. CHALLENGES AND LIMITATIONS

In the fast-developing country like Egypt, internal control units face challenges in being able to keep up with universities 1. Training; 2. Financial expense; 3. Awareness of senior staff; 4. Reader experience; 5. Cultural barriers; 6. Law of regulation. These are some of the challenges faced in the development of internal control measures within the organizations. For example, most universities lack the necessary financial resources to launch initiatives that aim to reduce internal control and fraud risk. Consequently, in order to meet the training needs in internal control, some universities resorted to outsourcing training and shortening the sessions for budgetary reasons.

Internal control is an essential part of the public administration and its behavior. It helps to maintain public trust and market integrity. It encompasses systematic financial management by controlling the overall firm's access activities (Said et al., 2019). Internal controls also help to monitor compliance and identify and prevent illegal activities (Liu & Li, 2021). Furthermore, it has been recognized that the Egyptian public sector is in a critical situation, as it faces numerous challenges and barriers. These weak points are partially due to insufficient regulation, large-scale informal and bureaucratic systems, isolated entities, gaps in legal and internal control, monitoring cases and improper execution, and lack of human resources skill and talents (Espejo, 2022).

#### A. Resource Constraints

The internal control department in the Egyptian public sector achieves its own objectives before overseeing and helping other departments to achieve their specific objectives. The CIA holder knows how to execute the COBIT 5.0, studied structure of the examination, the collective and systematic selfassessment. May conduct an independent campus audit loophole for the Information Governance. It helps in planning and consistent achieving of vital mission objectives. Evaluate the success of the already functioning integrated system (GRC) and promote improvements, where it is still under development. Information in an intra-vital in the newest and commonly used technology. The information directs the functional activity along with financial and human resources departments. Females hold three main positions out of the four choices given. positive and Satisfactorily with non-significantly difference=1=1=4, p<0.05 has females during choosing education and higher educational specialization this can be related to favoritism in choosing information specialism related to one of the known fields like engineering, commerce and computer science [ref: f91d0f0b-6900-40c7-aa87-5117693df4f5=^'].

Due to limited financial resources, only minor changes are made to reduce energy-related expenditures, as initial implementing costs are considered as too high [ref: 1de6fdd1ecc2-46ac-a28b-9690ba6be352=. SO11. There is an underestimation of the integrating abilities and the importance of IT governance implementations and of the sustainable contribution of the Information governance (COBIT 5.0) implementation. LGUs tend to lack the full arrangements to ensure institution's continuity [ref: 37b79d14-2f6c-448c-b198c836e86d30de=^'], and often delegate it informally to IT management. This leads to unstructured and unsystematic approach to the matter typical of the nature of the Egyptian public sector. There is no such a specific threat-reducing administrative unit "office for local security and order", which coordinates a variety of security-oriented planning, decisionmaking and operational activities of others within the local government. A lack of task force will result in an uncoordinated information management; this could strongly reduce the ability to reveal threats, to react to emergencies and to endure unannounced risks.

## B. Resistance to Change

Strategic change in organisations is a critical factor in preventing failure as a result of external threats, challenges and changes to the global environment. As such, change management is a significant issue for organisations in responding effectively to financial crises and other challenges. Therefore, accounting has focused on maintaining and improving a firm's competitive position within the industry. The accounting system has mainly been discussed in terms of changes and their impact on firm performance and a firm's financial report (H. Ismail & R. Obiedallah, 2022). However, the drivers and barriers of change within the internal control system have been chosen as a strategic issue and the scope of accounting in the adopted model of the proposed study. Accounting research indicates the potential influence of internal control in reducing the firm's financial performance. It has been determined in the context of corporate governance that the internal control system is one of the main plans designed to reduce agency conflicts. Nonetheless, there is still a lack in the literature with respect to issues related to revealing the drivers and barriers of change (Espejo, 2022).

To remain competitive in today's environment, change is a necessity. In the current climate where businesses are operating in globally competitive environments, firms need to maintain and improve their position, products, and services. Change is an essential strategy, particularly in the field of international accounting. The world economic environment is changing rapidly, making it important that accounting systems and practises change, with the current pace being no exception. The rapid advancement of technology, increasing businessmobility, globalisation, and more demanding regulatory requirements are just some of the factors that require accounting systems and practises to adjust to a rapidly changing environment. As internal control is a critical part of the development and execution of business processes, the success of the whole system depends on the authenticity of a company's risk assessment and internal control processes (Pollini et al., 2021). Resistance to change is manifested in many forms, shapes, and indications, and it eventually distorts the development process and the intended change.

## IX. RECOMMENDATIONS AND BEST PRACTICES

CIA certification for the internal control department is an official exclusive certification for the internal controls global professional. It is a distinctive indicator of the g our partners' commitment and integrity principles. The CHI certification reflects the ACI spouses' ability to conduct an immediate

# https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

critical and comprehensive audit. Local integrity and operational procedures and governance, risk management, and compliance systems. In addition, this certificate confirms the relationship between IA and governance, risk management, and compliance (GRC) functions. Consequently, the study aims to support this relationship by leveraging using the CIA global certified auditors in the public sector. .maDOI 10-s214 12-LOG-2021-0003 164\_ulthor 2021 by author(s). CC by licome. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The goal of the article is to develop a comprehensive conceptual framework that encompasses the critical success factors of implementing a CIA system in the internal control department. The theme for the study is exploring the role of CIA in enhancing GRC within the public sector organizations in Egypt. The research problem encountered in the Egyptian public sector organizations is the highly diversified roles of the internal control department (people, performance, regulation, or technology) as they support the effectiveness of the governance, external auditing, and risks management functions. Additionally, the third challenge based on conducting a comprehensive review of the relevant international and national literature reflects the lack of related studies in Egyptian organizations. There are also few audit applications for the CIA functions and their effect on the organization governance, risk management, and internal control practices. The study highlights the importance of using the CIA systems in assessing internal control weaknesses and red is appreciation of the effectiveness of the GRC systems.

### > Training and Development Programs

This research period was characterized by many of the previous published studies and literature as a time of intense change and altering the competitive, regulatory, and economic environment causing senior management to reconider the way in which they believe risk is understood and how risk management is implemented (Schuett, 2023). Moreover, the knowledge sharing aspect of decision-making and their strategic judgments, related to risk management, together with corporate governance. The studies beliefs concurred the importance of possessing the knowledge required to correctly influence the formulation of long-term sound corporate strategies through the management of the policies and practices of enterprise risk. Moreover, this concept forms part of the background literature represented for this paper investigating the key stakeholders such as the heads of GRC departments, the chairperson of the risk committee in the board of directors and other stakeholder involved in risk governance and compliance. If the heads of GRC are to become a regular attendee of the board of directors, then they need to be placed on par with the CAE to avoid reporting problems.

Several studies (Abdulmhsen Alfalah et al., 2022) have found the effectiveness of training and development programs in enhancing the skills of the human elements involved in achieving their organizations' goals. This enhancement of their individual levels of achievement, in turn, contributes positively to organizational efforts. Thus, training and development programs lead to organizational continuity, development, and competitiveness. Therefore, organizations should pay more attention to their human elements through developing their capabilities and enriching their knowledge and experiences. Some researchers have defined the concept of training as "an organized learning effort aimed at providing employees with the skills they need to excel on the job by increasing the effectiveness of employees' performance in their jobs in turn leading to increased performance effectiveness for the organization. Meanwhile, many researchers have defined the concept of training as "those activities whose goal is to maintain or improve the employee's current job-related performance". Development, by contrast, has been defined as "an effort that is oriented more towards broadening an individual's skill for the future responsibilities". A more comprehensive definition states it is the "efforts put in some activities toward developing the skills and abilities of employees and increasing their knowledge in a planned, shorttermed, and focused manner".

## X. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

In the light of the related studies' implications and limitations, this work highlights the needs to enhance the Egyptian internal control departments by incorporating a variety of young experts who are more enthusiastic about the vast practical knowledge, court experience, willingness to learn, in addition to be more supportive of their role and involvement in IC department GRC. This work also sounds the necessity to increase the degree of internal auditors' empowerment and develop an environment nurturing their potential to know the unique work requirements they face. Finally, the study emphasizes the requirement of additional empirical assessments to thoroughly address related outlooks (Mohamed Nazief Haggag Kotb Kholaif et al., 2022).

The study aimed to examine the role of CIA holders in the internal control systems and how they enhance the organizational GRC in the Egyptian public sector organizations. The results indicate that CIA holders are knowledgeable, experienced, dedicated, eager to learn, proactive, and flexible in their treatment of their work in relation to internal controls (Liu & Li, 2021). It was also found that they have a large portion of these characteristics which prove their high potential in the workforce of internal control. Regardless of the circumstance they face, in line with. They also find that in contrast to the significantly large respect to the assertiveness attribute and despite their all other attribute that still.

ISSN No:-2456-2165

# https://doi.org/10.38124/ijisrt/IJISRT24MAY2202

#### A. Summary of Findings

Based on the results of the field study, it is evident that the possession of the candidate for the Internal Auditor certificate from the passing units of the Certified Internal IT Auditor certificate (the unconscious study sample to obtain a comparative overview) is reflected on the personality and leadership skills. This is evident in the possession of the internal auditor of the practical programs of internal and external auditors with qualified competence in the electricity, gas and water sector to internal auditors, which leads to distinct superiority in controlling the financial performance and information technology in this sector with effective risk management to promote positive directions and support the application procedures. Activities based on the development of the functions of the departments of internal control evaluation in the study entities. It becomes apparent that internal auditing cannot perform the administrative control function on its own, as well as on the future direction of converting to an analytical (convinced) role, but this is a synergy process with senior administrative behavior and is a two councillors. (Borg et al., 2017)

In order to determine the role of Internal Audit staff (CIA holders) in the Internal Control Department in the Egyptian public sector, as well as their effect on GRC, the average values of the research tool put in the study varied between (50% to 80%) to guide and facilitate the tasks or the functions of the staff in the internal control departments and the positive effect of these functions on the application of governance, risk and control (GRC), as well as the ability of information technology and the support of practical applications to improve the operation of management variables through the will of the staff of the internal audit to innovate and come up with new ideas and creativity as internal auditor staff or direct and indirect creative services. The study indicated the presence of a statistically significant effect of the situation of Internal Audit staff who hold the Certified Internal IT Auditor (CITA) certificate. As it aims to increase the efficiency of the department of internal control through programs and accounting systems controlled by designed control operations and enable management to take decisions referred to them by these systems, methods and techniques, to achieve effective internal control and according to the vision and objectives of corporate governance, as well as the degree of support and facilitation of risk management procedures and their effectiveness through highly efficient continuous audit programs that add the method the scientific alternative in the working environment.

### B. Areas for Further Investigation

The Ministry of Civil Aviation and its affiliated bodies have needful of utilize internal control system as a means to achieve effectiveness and efficiency as regards the public assets and this turns the light on the importance of the internal Audit Department activity generally and specifically the CIA holder so that the last is considered key factors to maintain this objective. The global challenge to confront corruption included take care of transparency and how to apply its practical procedures [ref: 1de6fdd1-ecc2-46ac-a28b-9690ba6be352, ref: 4dc91065-5485-4a8b-95ef-830b0db593d5]. This mode tries to clarify the accuracy of the transparency and how to verify its internal audit.(accountability existence by the and transparency). Moreover, it confirms the clear fidelity assurance, and the right reveal of violation once occurred which represented antithesis of corruption. Despite of those barriers and challenges, integrity can't be finally achieved by any bureaucratic regulations and its rules about human dishonesty, hence practical measures must be take care of, these measures depend on transparency and accountability which interlinked via insuring part once it have limited knowledge, internal control is direct reflection of the international control from performance and objective point of view.

Accountability, transparency, and integrity, are interconnected GRC building blocks essential for efficient public governance. The project attempted to evaluate the importance of CIA holders in internal control in the representatives of the internal control sector in the Ministry of Civil Aviation and other public sectors and their influence on the development of governance, risk, and compliance (GRC). The research findings revealed that accountability and transparency pillars appeared at the highest level of significance, generating a drive to improve oneself to cope with the changes introduced by the practices of globalization and the new principles of the good governance and to conform to the new amended international standards of the internal control system and to confront the widening vagaries of the business environment especially those related to information technology era (Espejo, 2022).

#### REFERENCES

- [1]. Said, J., Mahmudul Alam, M., Mat Radzi, N., & Hafiz Rosli, M. (2021). Impacts of Accountability, Integrity, and Internal Control on Organizational Value Creation: Evidence from Malaysian Government Linked Companies. osf.io
- [2]. Abdulmhsen Alfalah, A., Muneer, S., & Hussain, M. (2022). An empirical investigation of firm performance through corporate governance and information technology investment with mediating role of corporate social responsibility: Evidence from Saudi Arabia telecommunication sector. ncbi.nlm.nih.gov
- [3]. Arslan, M. & Alqatan, A. (2020). Role of institutions in shaping corporate governance system: evidence from emerging economy. ncbi.nlm.nih.gov
- [4]. Espejo, R. (2022). The Cybernetics of political communications and social transformation in Colombia: the case of the National Audit Office (1995–1998). ncbi.nlm.nih.gov
- [5]. Schuett, J. (2023). AGI labs need an internal audit function. [PDF]

- [6]. Said, J., Azizal bin Abd Aziz1, M., & Mahmudul Alam, M. (2019). Assessment of the Practices of Internal Control System in the Public Sectors of Malaysia. osf.io
- [7]. H. Ismail, T. & R. Obiedallah, Y. (2022). Firm performance and cost of equity capital: the moderating role of narrative risk disclosure quality in Egypt. ncbi.nlm.nih.gov
- [8]. Kong Wong, C. (2023). A Process Model to Improve Information Security Governance in Organisations. [PDF]
- [9]. Mahmudul Alam, M., Said, J., & Azizal bin Abd Aziz, M. (2019). Role of Integrity System, Internal Control System, and Leadership Practices on the Accountability Practices in the Public Sectors of Malaysia. osf.io
- [10]. Donahue, K. & Rahman, S. (2015). Healthcare IT: Is your Information at Risk?. [PDF]
- [11]. Álvarez-Foronda, R., De-Pablos-Heredero, C., & Rodríguez-Sánchez, J. L. (2023). Implementation model of data analytics as a tool for improving internal audit processes. ncbi.nlm.nih.gov
- [12]. Eissa, Y. & Allah Essam E. Khalil, H. (2022). Urban Climate Change Governance within Centralised Governments: a Case Study of Giza, Egypt. ncbi.nlm.nih.gov
- [13]. Almomani, I., Ahmed, M., & Maglaras, L. (2021). Cybersecurity maturity assessment framework for higher education institutions in Saudi Arabia. ncbi.nlm.nih.gov
- [14]. Liu, B. & Li, L. (2021). Internal-Control Willingness and Managerial Overconfidence. ncbi.nlm.nih.gov
- [15]. Borg, M., de la Vara, J. L., & Wnuk, K. (2016). Practitioners' Perspectives on Change Impact Analysis for Safety-Critical Software - A Preliminary Analysis. [PDF]
- [16]. Pollini, A., C. Callari, T., Tedeschi, A., Ruscio, D., Save, L., Chiarugi, F., & Guerri, D. (2021). Leveraging human factors in cybersecurity: an integrated methodological approach. ncbi.nlm.nih.gov
- [17]. Mohamed Nazief Haggag Kotb Kholaif, M., Ming, X., Moosa, A., & Gad David, K. (2022). The ISO 26000's labor environmental issues during COVID-19: does corporate social responsibility help? Evidence from the Egyptian small and medium enterprises. ncbi.nlm.nih.gov