

**THE IMPACT OF IMPLEMENTING ROBOTIC PROCESS AUTOMATION (RPA) ON THE  
INTERNAL AUDIT FUNCTION: A MALAYSIAN STUDY**

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**Abstract**

Automatic Procedure Software (RPA) will be gaining interest in the industry atmosphere. New-technology imposes brand new danger issues, the character associated with imitating human being conversation offers questioned the particular auditing procedure, causing a brand new skill needed from the inner auditor in order to deal with the problems. This particular research offers a summary of the particular effect associated with applying RPA around the Inner Review Functionality (IAF) within 3 places: important dangers inside the RPA execution, typically the modifications in our interior review procedures as well as the skill necessary with the inside auditor. The outcomes are usually noticed via job interview along with professionals from your industry regarding inner auditing, THIS auditing plus RPA. The research utilized the calculated sample way to choose focus on participants necessary for the particular semi-structured meeting, an overall total involving 9 individuals are chosen since the test dimension for that examine depending on their own encounter plus fundamental understanding within inner auditing or even RPA advancement. The particular results says the particular execution associated with RPA possess a substantial effect on the particular I ALLA FALL simply by presenting fresh hazards, changing the interior examine procedure, in addition to challenging brand new skill regarding inner auditor. This specific research plays a role in typically the books inside interior auditing generally, and THIS inside auditing a lot more particularly. This kind of research furthermore reacts towards the current demand informative study throughout RPA.

Key phrases: Automatic Procedure Motorisation; RPA Dangers; Interior Auditing; THIS Inside Auditing

## **Introduction**

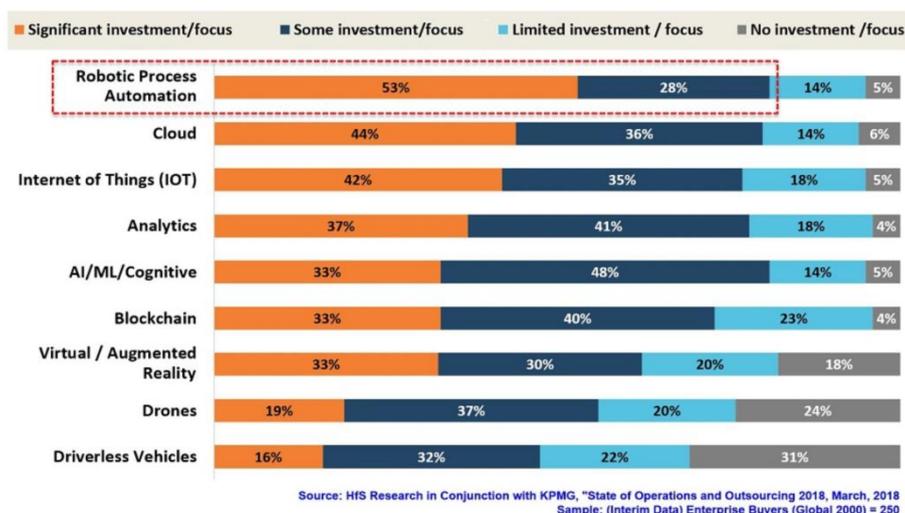
Recently, the corporate world will be dealing with along with growing difficulties plus advancements. Using the developing change towards difficulties, companies skilled problems within dealing with technical, financial, in addition to interpersonal advancements (Kaya, ainsi que ing., 2019). Companies are right now revolutionising their own method of working and even growing, powered simply by Business four. zero (Epicor, 2020). Your fourth Commercial Trend highlight around the enhancement within electronic technologies by using interconnectivity, device studying, current information, together with software. Business some. zero improvements fashionable associated with software via digitization plus connected manufacturing, producing Automatic Procedure Software (RPA) among the important elements traveling businesses through Market a few. zero in order to four. zero. RPA is among the primary systems inside Sector 5. zero which will essentially change the particular facilities plus procedures associated with each back-end in addition to front end businesses to be able to considerably decrease price, boost manufacturing, give a quality regarding result plus result in a greater client satisfaction.

“They state no one can purchase period. All of us problem all of them.” -- Motto of the RPA technological innovation supplier : Aggrandia (2020).

Utilizing a pc or even “virtualized robot” rather than individual to control current software software program, RPA may be the using particular technologies and even strategy in order to statements programs, databased, understanding administration techniques exactly just like an individual nowadays procedures the deal or even finishes a procedure (Madakam, ou ing., 2019). RPA can also be termed as a preconfigured program that will utilizes company guidelines together with predetermined exercise choreography to accomplish the particular independent performance of the human being exclusion administration end result or even support in a single a lot more not related application methods. In a nutshell, RPA, typically the robots handle individual jobs (Moffitt, ain 's., 2018).

Based on the researching the market statement released simply by P&S Cleverness (2020), a global RPA marketplace is likely to develop coming from close to \$1. six billion dollars within 2019 to be able to regarding \$46. zero billion dollars by simply 2030. It really is

considered that will along with quick digitization, businesses throughout several honnête are usually applying digital workers, because RPA assists systemize the company procedure, therefore preserving some functional costs. Additionally , study carried out simply by Race horses with regard to Resources (HfS), along with KPMG, RPA will be the very best since the best involving expense associated with businesses to attain functional expense conserving objectives (Fersht, 2018). Therefore, it could be observed of which RPA takes up among the essential techniques for the introduction of business.



### RPA, Cloud & IoT Lead Investment Focus

With regard to business discovering the particular possibilities associated with RPA, constant enhancement plus software are usually their own tactical objectives. RPA offers acquired a lot more interest recently in comparison to some other systems, like Synthetic Smart (AI) plus Device Studying (ML). For the reason that RPA is generally cheap and straightforward to include in accordance with costly AJE in addition to MILLILITERS options. RPA is generally nonintrusive, without having producing substantial interruptions, it may rapidly match inside the current THIS facilities and provide corporation a positive return quicker compared to some other technology (Chau, 2019). Background indicates that will software has a tendency to produce a lot more work compared to this demolishes, because human being abilities be a little more important within checking, making decisions, interpretation outcomes, and even offering understanding together with support in order to clients. Essentially, RPA enables worker to improve their own person really worth plus worth, plus completely connect to the reason in addition to technique of the businesses (Fersht, 2018).

Malaysia features the Nationwide Information plus AJAI plan simply by mid-2020 to find by itself like a system with regard to AJE skill tidying inside South-East Asian countries, and also to assistance the attempts throughout building industrial AJAI environment (Globaldata. possuindo, 2020). The introduction of Malaysian RPA Middle regarding Superiority (CoE) additional assistance and even speed up client ownership involving RPA within Malaysian labor force. This particular CoE will be worked with simply by Capgemini, a worldwide electronic change specialist, together with Glowing blue Prism, one of the greatest RPA designers plus suppliers. Consequently, you will see a lot more nearby skills to become ready for that digitalized labor force inside Malaysia (Tan, 2019). Additionally it is through The particular Advantage Marketplaces Malaysia, besides big businesses, Little in addition to Medium-sized Businesses (SMEs) are actually much better situated in order to apply brand new solutions provided the particular inexpensive price of implementing RPA. RPA aids SMEs within climbing even more sustainably and even allowed these to become more versatile in working with unpredicted occurrences, for example COVID-19 outbreak (Amirudin, 2021).

Within financial, data processing, recruiting, discussed solutions along with other regions of companies where the particular procedures together with methods are steady, repeatable plus higher quantity, RPA will be common. The value-based plus business-focused RPA technique empowered agencies draw out 25-200% Come back associated with Expense (ROI) out of this electronic digital change. As a result, review frontrunners have to realize in addition to think about the connected risks plus chance that will RPA can delivered to the interior Review Functionality (IAF), the 3rd type of protection by itself. Inner auditing is usually dealing with difficult throughout supplying affordable guarantee more than numerous recently automatic procedures, typically the groups ought to carry out RPA governance evaluations to supply guarantee above company RPA implementations (Bryan, 2019). The interior examine occupation should observe growing technologies from your viewpoints the way the technologies might impact the placement. There are numerous facets of procedure software that may give rise to improved danger publicity when compared with a conventional THIS software. Because of this, manage type of the company's inner manage must be growing using the RPA execution within a business. Since the company retreats into technological innovation within their manage organization-wide, interior auditors need to think about brand new or even increased dangers this might existing and exactly how they could offer confidence towards these types of dangers (PwC, 2017a).

Simultaneously, the significance as well as the objective from the I ALLA FALL advances because government bodies look for much better methods to safeguard traders, customers, and even companies; whilst table users plus older professionals search for far better methods to safeguard their particular passions and also the ones from the particular businesses together with stakeholders in order to who they may be responsible (Gray, 2016). RPA provides each obligations plus for you to inner taxation. To begin with, I ALLA FALL like a reliable consultant in addition to have to work together along with other market leaders upon approaches to boost the manage atmosphere since company procedures are usually remodeled and even computerized making use of RPA. Inside inner exam, fresh screening methods is going to be required for automatic techniques (PwC, 2017a). Typically the forth-coming information environment will certainly include a big string associated with interlinked information resources and several continuously performing smart brokers carrying out peace of mind jobs together with sketching exclusions in certain type of constant review (European Courtroom regarding Auditors, 2020). I ALLA FALL which are fairly sophisticated inside their utilization of info stats would certainly very easily find a way to develop ongoing auditing program. For instance , whenever RPA is made to be able to handle typically the removal plus modification in the information from the resource program, the particular examine assessments may be easily re-run on the normal or perhaps constant foundation (PwC, 2019).

Because RPA energy raises, inside review experts need to maintain speed by simply assisting organization know plus handle RPA dangers plus in advance adopting RPA inside their personal firm. I ALLA FALL since the manage features need to ensure handle requirements are in position for that roll-out in addition to administration involving RPA. Therefore, this particular research is exploring the effect associated with applying company RPA around the I ALLA FALL within 3 places: important chance locations inside RPA setup, modifications in our inner taxation procedure and finally, typically the skill needed from the inner auditors.

### **Problem Statement**

Within 2016, KPMG plus Forbes carried out the study that will targeted a lot more than 400 Main Monetary Officials (CFO) plus review panel seats to talk about towards advancements associated with inner examine, in addition to 百分之九十 from the participants announced of which their own I ALLA FALL is just not properly determining and even addressing growing

dangers. These people left a comment inner taxation must be a lot more positive within determining together with excuse danger, not only evaluating the particular regulates currently in position. The usage of technologies, information plus stats within exam strategy in addition to strategy unquestionable end up being the greatest problem with regard to interior auditor (Chuah and Maes, 2016). Through the years, the introduction of software continues to be growing the effect upon I ALLA FALL. Numerous problems should be thought about about how I ALLA FALL caped using the RPA execution. RPA as well as make use of increase, I ALLA FALL are not able to assist yet encounter previously human-controlled procedures which are brand new carried out robotically. Over the following couple of years, inside auditor will be progressively prone to experience RPA inside program review events.

Because RPA is really a current subject, typically the literatures usually do not synthesise the primary subjects associated with the result regarding RPA around the I ALLA FALL. The research associated with Duncan as well as Whittington (2016) launched the potential risks and even released upon impair processing may jeopardize I ALLA FALL. The particular books recognized the particular fog up concerns as well as effect on conformity. Moorthy, ainsi que ing. (2011) furthermore offered the potential risks carried by Technology (IT), and exactly how inner auditors ought to deal with contemporary info plus systems. Therefore, do you know the important chance places inside RPA execution throughout organizational-wide?

RPA enables I ALLA FALL to maneuver past conventional investigator or even precautionary strategies involving regular creature ask for. Earlier research simply by Moffitt, ainsi que 's. (2018), these people resolved numerous study possibilities towards execution associated with RPA within inner examine, offered fresh guarantee procedures must be produced. Whilst Ernst and Younger LLP (2018) outlined the particular part associated with interior auditor to become much better ready with regard to affected around the review strategy together with think about a brand new procedure impacted by RPA. Nevertheless , this particular matter have not however already been cleared up plus empirically examined. Therefore, the 2nd query is going to be, exactly what will be the modifications in our inside taxation procedure regarding businesses starting RPA?

Current studies have up to now discovered the usage of RPA, especially in neuro-scientific data processing that will needed requirement jobs plus some in the difficulties plus options included (Cooper, ou approach., 2019). Some other research like results regarding Lois

griffin, ain way. (2020) attract the interest associated with inner exam towards the abilities plus practicing typically the organization of the efficient auditing program within electronic period. Yet , the concentrate summary about skill anticipated by simply I ALLA FALL for that companies applied RPA continues to be lacking to date. Consequently , do you know the skill needed simply by interior auditors?

I ALLA FALL since the 3rd type of protection that delivers impartial, goal confidence more than a good organization's risikomanagement, inside manage, governance as well as the procedures in position intended for making sure usefulness, effectiveness in addition to economic climate. Execution involving RPA provides each obligation and even for you to the particular I ALLA FALL to develop a good review program that will maintain speed using the growing technology. Hence, this particular research will be performed to learn the particular effect associated with applying RPA within the I ALLA FALL. Earlier involvement associated with I ALLA FALL within an RPA effort guarantees balanced conversation, threat evaluation together with general opinion within the general framework regarding governance plus procedure style.

### **Research Objectives**

This particular research is designed to supply a summary of the organization's Inner Review Functionality to maintain speed within the period associated with Automatic Procedure Software. The particular goals offered because adhere to:

To learn the important thing danger region inside Automatic Procedure Motorisation execution within a business.

To comprehend all of the changes within the inner review procedure with regard to businesses starting Automatic Method Robotisation.

To comprehend the particular skill needed simply by inner auditors.

### **Research Questions**

The study queries are usually offered because adhere to:

Do you know the important danger places inside Automatic Procedure Software execution within a business?

What are modifications in our inner review procedure with regard to businesses starting Automatic Method Motorisation?

Do you know the skill needed simply by inner auditors?

## **Significance of Study**

### **(5.1) Theoretical contribution**

This particular research is exploring the particular effect associated with company RPA execution around the I ALLA FALL. This particular research is added like a fundamental evaluation also it offers a lot more extensive understanding towards the specialist plus college student within the inner auditing region to maintain speed using the Business four. zero, in addition to particularly when it comes to RPA.

### **(5.2) Academic contribution**

This particular study's objective is made to ensure that the educational organization plus data processing in addition to auditing college students to enhance educational proficiency and supply a good scientific overview of the particular effect associated with RPA execution around the I ALLA FALL. In addition, it is important in order to experts that are worried about performing additional study simply by producing pathways to concentrate in this range associated with research.

### **(5.3) Managerial contribution**

Information provided will give you inner auditors along with home elevators very best effect from the business ownership associated with RPA upon inner auditing, particularly the important thing danger region, modifications in our inner review procedure plus skill needed inside an RPA execution, via this particular research. The outcomes will certainly allow interior auditors to consider a lot more concern within developing the manage platform within preparing yearly examine and so on. This particular obtaining furthermore aids the interior review business to comprehend how you can deal with the brand new technologies re-homing inside businesses.

## **Scope and Limitation of the Study**

This particular research is involved along with execution associated with RPA within the organizational-wide as well as the effect on the particular I ALLA FALL since the 3rd type of protection. This particular research should discover the connection between ownership associated with RPA within organizational-wide as well as influence on I ALLA FALL. RPA has been selected because the study subject as the unique features that will elevated concern regarding inner auditors. Particularly, this details 3 impartial factors specifically important danger places, modifications in our inner review procedures, plus skill needed simply by interior auditors. The study concentrates just around the inside auditing, the 3rd type of security since the reliant adjustable. It is a qualitative study carried out via main information plus job interview. For that variety of information, job interview queries are usually open-ended queries in addition to 9 professionals from your industry involving inner auditing, THIS auditing plus RPA designers within Malaysia is going to be chosen for that meeting.

The research is simply concentrate on the particular effect associated with company setup regarding RPA around the I ALLA FALL, provided typically the originality from the I ALLA FALL as being the 3rd brand of protection that will was executed to offer affordable guarantee within the new-technology. Since the period moving forward, additional analysis could be carried out inside the subject showing how I ALLA FALL ought to follow RPA when it comes to enhance interior review effectiveness and so on.

The particular life long this particular research is fairly brief. This particular studies becoming carry out with regard to 7 weeks from Aug 2020 in order to 03 2021 that the info might not be completely to the most recent day. The only real 8 weeks period furthermore inadequate for that specialist to check into deeper and even commonly in to this specific research. Following, because RPA is actually brand new together with growing, seeking the related publications and former studies hard since there is certainly paucity involving study drill down in to this particular subject, specially in conditions associated with auditing the particular RPA. Apart from, a period number of 2015 in order to 2021 regarding content articles plus publications will be chosen. The from the information can also be restricted for the reason that info have to be continued to be privacy.

## **Operational Definitions**

Operational Definitions

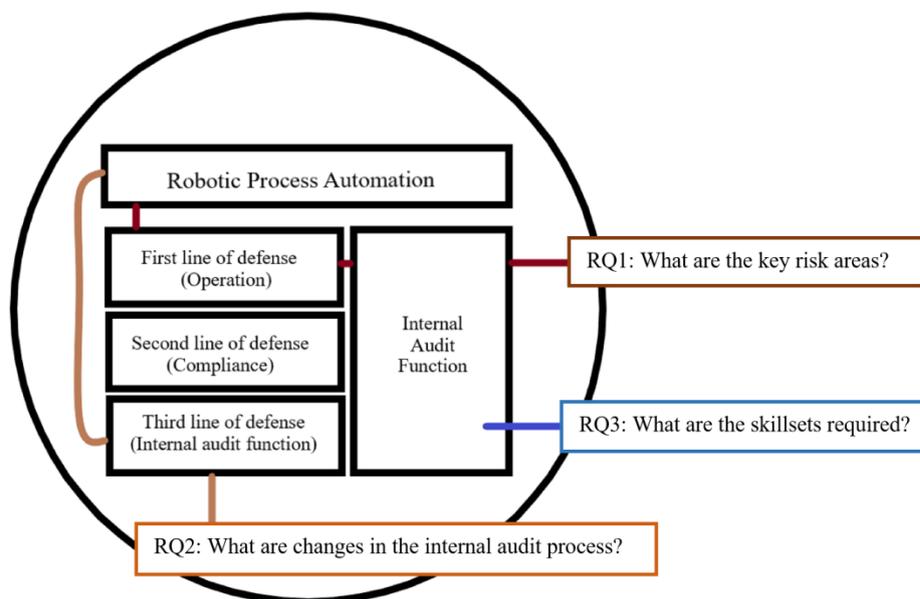
<b>Terms</b>	<b>Definitions</b>
<p>Robotic Process Automation (RPA)</p>	<p>RPA is really a software program that will treats some other software software program in the interface degree and it is utilized to handle procedures which are organized plus rule-based (Cohen, ainsi que ing., 2019). Simply no bodily automated programs is going to be talked about within the framework associated with RPA.</p> <p>Furthermore known “bot”, “software robot” with this research.</p>
<p>Automated environment, RPA environment</p>	<p>A good automatic atmosphere with this research describes a company surroundings where the particular procedures, procedures, data processing are performed simply by RPA.</p>
<p>Robotic Process Automation Developers</p>	<p>A good RPA programmer is really a specialized enabler that style, constructed plus apply the robot. He will be reached the particular part along with development abilities plus understanding within development manage moves, exclusion dealing with, plus information constructions (Carr, 2020).</p>
<p>Robotic Process Automation Consultants</p>	<p>A good RPA specialist, furthermore known RPA experts, is in charge of carry out RPA evaluation plus determine possibilities with regard to procedure enhancement. He will be offered being an integrator among company plus technologies, in addition to style RPA technique to fulfill the small business associated with customers (Carr, 2020).</p>

## Literature Review

This particular section evaluations plus talks about the particular books plus previous study in regards to RPA plus inner review. The particular section will certainly summarize the idea grounding from the research, accompanied by overview of the interior examine, RPA, RPA dangers, review procedures in addition to skill associated with interior auditors. Books spaces will also become recognized.

## Conceptual Framework

The conceptual platform (see Determine 2) will be suggested with this research, to research the effect associated with applying company RPA around the I ALLA FALL. Based on Kilometers, ainsi que ing. (2014), the conceptual platform is really an approach to ideas that will convey plus describes associations one of the important aspects, principles or even factors. This particular research retreats into the particular IIA's 3 Ranges associated with Protection (3LOD) design in to the conceptual platform in addition to obviously visualizes typically the human relationships one of the 3 parameters: crucial danger places inside RPA execution, modifications in our inner review procedure and even skill needed simply by interior auditor.



## Conceptual Framework

3LOD arranging important functions plus responsibilities in to 3 amounts or even “lines associated with defense”, to improve the particular clearness regarding dangers plus regulates in addition to help to improve the potency of organization’s risikomanagement. The very first type of protection includes typically the risk-owning features, as well as the 2nd collection consists features which are accountable for observance and even supervise the danger administration. The 3rd collection is I ALLA FALL by itself, that provides impartial guarantee (IIA, 2013).

3LOD design will be popular inside a risikomanagement. Three ranges involving protection describes functions plus tasks associated with risikomanagement. Based on design, three ranges are essential in order to help the danger administration together with inner manage (Kovanen, 2020). The particular IIA (2018) appreciates that this 3LOD design must maintain the particular come out modifications within marketplace problems plus technologies changes inside a digital plus network globe. According to this particular research, RPA will be disrupting the company procedures that will primarily performed from the 1st collection in addition to 2nd range. Consequently, the 3rd series should consequently likewise include the best abilities to stay up to date with modifications and be sure they offer efficient oversight and even goal guarantee, correspondingly (ICAEW, 2019).

With this research, I ALLA FALL will act as 3rd brand of protection on the particular execution associated with RPA within the organizational-wide, it is necessary with regard to I ALLA FALL to deal with the potential risks, be familiar with within procedure boost their own skill. The study queries are offered within the conceptual platform, where the very first study query associated with typically the RPA setup throughout the procedure also it targeted to recognize the important thing danger places presented towards the business. The 2nd analysis issue talked about the particular immediate effect regarding RPA for the 3rd type of security and it also targeted to comprehend typically the modifications in our interior review procedure regarding business starting RPA rendering. The 3rd exploration query outlined the particular intended effect involving RPA towards the I ALLA FALL plus it directed to research the skill needed with the inner auditors.

### ***Internal Audit and IT Internal Audit***

IAF is independent from the operations, that intended to add value and improve an organization’s operations by providing objective assurance and consulting activity. Internal auditors use systematic and disciplined approach to evaluate and improve the effectiveness of an organization’s risk management, control, and governance process (IIA, 2004). Internal

auditors are regulated by International Professional Practices Framework (IPPF) (“the Standards”) and the particular Program code associated with Integrity. The particular growing methods regarding inner auditing possess resulted in the introduction of interior review guidelines plus worth put into the business as well as stakeholders simply by learning the partnership among inside auditing in addition to company objectives. Inner auditors have relocated from the confrontational method of joining up along with administration and even moving from the regulates method of the risk-based strategy (Hass, ainsi que ing., 2006).

Interior review continues to be dealing with several possibilities dangers plus difficulties during these couple of 10 years. Lois griffin, ainsi que ing. (2020) analyze the particular options plus problems electronic period presented towards the inner examine the part involving technologies, dangers, together with manage concern inside the execution of recent technological innovation, ability plus understanding required simply by inner auditors plus advised the introduction of constant auditing. Ramamoorti plus Weidenmier (2004) outlined THIS impacted nearly every essential dimensions from the I ALLA FALL when it comes to company standing plus rental, typically the range, strategies, in addition to interior review methods. These people decided that this common impact from it upon just about all inside taxation actions made to advertise plus assistance efficient company governance. Additionally they pressured the significance because acknowledged THIS is each a new car owner within tactical path, plus a good enabler within performance.

Since it utilized by business has become a growing number of complicated. By giving THIS handle assessment inside the platform associated with inner regulates, the particular I ALLA FALL would need to offer improved guarantee. If this regulates are correctly chosen and even applied to the foundation from the danger they may be built to manage, then the way to constantly keep track of typically the effectiveness plus quality than it manage will give you the necessary guarantee (Hass, ou 's., 2006). Just about any I ALLA FALL may have staff-plus supervisor-level inner auditors along with monetary plus functional interior review abilities. Additionally , the majority of I ALLA FALL must have a lot more degree of THAT review professionals. Moeller (2010) pressured the significance of must have some sort of specific THIS exam functionality or have got normal monetary or even detailed inner review organizations along with solid IT-related specialized expertise. This individual furthermore suggested the very best procedures to have an inner review business in order to furnished with various specialized.

Specialty-Based Internal Audit Organization

Within the wake up from it plus company change plus continuing electronic interruption, Technology Inner Review (ITIA) seems to be distinctive situated to include worth plus assistance the business although determining dangers in addition to leading with the execution of the techniques (PwC, 2017b). These days almost all companies depend on THIS to be able to total crucial functional jobs, shop monetary plus detailed information, plus get ready economic plus bureaucratic reviews. Provided the amount associated with expenses and even dependence onto it, it is important it sources be accessible together with safe to supply precise info (Gray, 2016). Used in to factors regarding RPA, there are many essential great analyze the particular participation associated with inner review within RPA (IT) review. The very first is these significance of RPA in order to businesses, resulting in the advantages of overview of typically the usefulness, effectiveness, protection, plus conformity involving RPA-related actions inside companies. IIA (2012) additional construed the particular Requirements 2110: Governance plus needed interior review exercise need to access if the THAT governance from the business facilitates typically the organization's methods plus goals. I ALLA FALL performs a huge role in assisting the particular table plus professionals to satisfy their own THIS governance obligations. I ALLA FALL might use expert books like THIS guarantee manual released because of it Governance Company (ITGI, 2007) in order to url to typically the Manage Goals with regard to Info Systems (COBIT) platform regarding confidence experts (Héroux and Fortin, 2013).

### ***Robotic Process Automation (RPA)***

#### **Introducing Robotic Process Automation**

Once the technologies was initially created, little intrigue had been created in order to replicate particular jobs or offer fast integrations among program that will failed to possess any kind of interoperability. With time, technologies offers advanced towards the “fourth era, ” meaning that duties that will utilized to need numerous ranges associated with pc program can be finished simply by pulling plus clicking on symbols inside a software program plan (Gadre, ainsi que ing., 2017).

#### **RPA - Parts of a Journey Towards Machines Replacing Humans**

Company associated with Electric plus Consumer electronics Technicians (IEEE) Business Admonitory Team (2017) described RPA because “a preconfigured software program example that will utilizes company guidelines plus predefine exercise choreography to accomplish the particular independent performance of the mixture of procedures, actions,

dealings, in addition to jobs in a single or even more not related application techniques to provide an outcome or even support along with human being exclusion administration.

RPA is definitely a growing technologies that allows anybody nowadays in order to set up software applications, or perhaps a “robot” in order to replicate and even incorporate human being relationships inside electronic methods to be able to perform enterprise procedure. RPA automated programs make use of the interface for capturing information together with change programs exactly like exactly what people perform. Contrary to conventional THIS options, RPA enables businesses in order to handle in a cheaper price plus period formerly experienced (UiPath, 2017). RPA are usually appropriate to the people repeated jobs which are standard sufficient, to lessen the amount of problems, in addition to enhance effectiveness. Quite simply, every RPA offers its very own pc train station, account information equal to the individual worker. The particular RPA market place is principally centered simply by 3 businesses: UiPath Incorporation., Glowing blue Prism Team PLC, and even Software Anyplace Incorporation (Kokina and Blanchette, 2019).

This kind of software looks for in order to systemize organization procedures to be able to boost the efficiency whilst decreasing expenses by simply decreasing time invested simply by worker coping with info techniques, carrying out program plus repeated duties, like inputting, removing, duplicating together with shifting large sums of information in one program to a different techniques. RPA allows workers in order to spend their own some sources to be able to a lot more value-adding responsibilities. RPA perform recurring jobs by utilizing gui (GUI) power supplies, without having altering the particular THAT facilities (Santos, ainsi que ing., 2019; Cewe, ainsi que ing., 2017). In contrast to a few conventional THIS execution plus company reengineering that will modifications the present devices, RPA attempts to not bother fundamental THIS techniques in support of eliminates the present guide method using the automatic 1 via a demonstration coating (Huang and Vasarhelyi, 2019).

### ***Types of Robotic Process Automation***

RPA continues to be segmented in to 3 organizations: went to software, unwatched software plus cross software. Went to automated programs act as a private associate around the user’s pc, carrying out a number of user-triggered activities to accomplish easy, program jobs in addition to improve the work flow. Unwatched programs needed small in order to simply no human being treatment to do rigorous information digesting plus info administration. Cross software really are a mixture of went to and even unwatched forex

robots that offer consumer solutions together with back-end running in one answer, using the potential customer associated with end-to-end automatic performance associated with complicated company work flow. Businesses may include most of these software tools into one, steady plus international incorporated motorisation system, as they softwares had not been contradictory. Companies should create a strong RPA technique to select the application versions that will greatest match their own requirements (UiPath, 2020a).

### ***Benefits of Robotic Process Automation***

Infosys (2020) directed 3 primary advantages produced from RPA. RPA can result in a greater functional effectiveness simply by decreasing the particular unintended mistake plus managed the standard behavior. Lower value added procedures could be removed leads to personnel work cost savings. RPA may enhance the conformity since the ROBOT offers its very own review records plus deal paths. Rigid protection plus regulates are accomplished via a safe in addition to audited automatic software system which is handled inside a THIS hallway associated with governance. Ownership associated with RPA presented a lesser danger from the decrease in management work.

Within an automatic atmosphere, because repeated and even dull jobs that need small psychological work are usually automatic by simply RPA, human being workers will be liberated to get their own sources within jobs that will include innovative considering, crucial evaluation, or even interpersonal abilities. In certain initial function, software program automated programs support individual staff, yet procedure motorisation via RPA will not depend on the basic associated with isolating together with separating person plus programs through one another yet looks for to permit effective conversation together (Lacity and Willcocks, 2016). With this framework, worker wedding, abilities advancement, plus finding choices should be thought about for that tactical endeavours in order to set up RPA within a business. Businesses have to re-think the particular jobs regarding workers due to the altering regions of obligation (Hofmann, ainsi que ing., 2020).

RPA do not need00 specific development experience for that growth application automated programs. A significant knowledge of the particular benefits from the info program, like the character involving rule-based constructions, the usage of information, as well as the programs terme, is just needed. Even though fairly lower THIS difficulty can make RPA a good straightforward device within a business with regard to numerous individuals in addition to features, serious method understanding is a new important element in the development society automatic robot. Due to the particular modularity associated with RPA features and

even quick enhancement series, workers may develop brand new uses or perhaps change current types agilely. Nevertheless, assistance among company also it features inside progress plus execution society automated programs is important since it features could advertise the particular access regarding software program software to be able to ENTERPRISE RESOURCE PLANNING techniques (Hofmann, ou 's., 2020).

### ***Requirement for Robotic Process Automation***

Even though RPA will benefit within cost benefits, its not all company procedure would work because of its make use of. Aguirre plus Rodriguez (2017), Gadre, ainsi que ing. (2017) plus Santos, ainsi que 's. (2019) suggested a few RPA-suitable procedure requirements:

Rule-based jobs -- RPA needed method to become separated in to easy guidelines which are free from person view, creativity plus meaning.

Limited exclusion dealing with : RPA will be preferably suited to extremely standard actions along with small in order to simply no exclusions to cope with.

Mature procedure -- It really is essential for that method become adult just because an adult procedure could be very easily evaluated, monitored, in addition to steady to get a much better price consciousness.

High quantity instructions RPA software is perfect for high-volume dealings because the higher quantity of repeating or even period delivered to develop a job is seen as an large cost cutting chance. Whenever jobs are repetitive frequently, automated programs may total all of them quicker along with lower mistakes.

Frequent relationships together with several techniques rapid RPA could get in touch with several methods with the demonstration coating. Nevertheless, additionally it is particularly that this program becoming interacted should be steady sufficient to prevent producing expensive program conditions.

Human mistakes instant Actions which are susceptible to human being mistake are suited to software since it enables cost benefits and even improved overall performance.

Low intellectual needs tutorial Because RPA insufficient inductive plus crucial considering abilities, jobs that need small in order to zero human being conversation and also have lower intellectual needs are usually ideal for software.

### ***Robotic Process Automation for Business Processes***

Santos, ainsi que ing. (2019) suggested a way with regard to examining RPA advancement inside a company business. These people synthesized the primary subjects associated with RPA, like the advantages of RPA, the particular difficulties within applying RPA plus possibilities within implementing RPA plus suggested an auto dvd unit around the relationships between matters. The research associated with Aguirre plus Rodriguez (2017) performed an instance research on the company procedure freelancing supplier about how the particular RPA is utilized inside an era of the transaction invoice. They will additional described the advantages plus restriction regarding RPA.

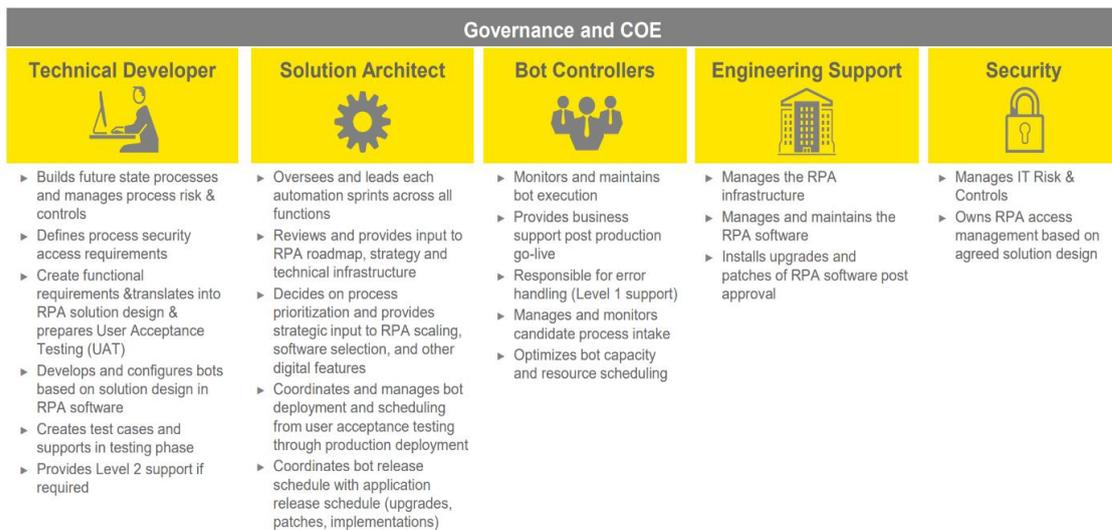
Romao, ou ing. (2019) talked about the particular execution involving RPA inside financial business. That they targeted in order to is exploring how you can effectiveness follow software within administration of the very most apparent method parts simply by performing situation research. These people mentioned the company procedure supervision plus motorisation, advantages plus functional dangers from your ownership associated with RPA.

Devarajan (2018) talked about RPA's software throughout numerous business domain names. Within bank market, RPA will be competent to reduce typically the guide digesting information mistakes simply by robotizing customer support, balances payables, balances receivables, common journal, credit score underwriting, conformity, bank card running, customer mortgage control, scams recognition, statement era in addition to accounts starting or even drawing a line under. Within insurance coverage market, to deal with the particular quick client development and even enhance finalizing period, RPA may handle guide back-office method like statements handling, underwriting, is attractive producing, information selection, plan starting or perhaps termination, and the like. RPA can also be within store sector to improve efficiency by simply robotizing customer care, item categorization, advertising evaluation, need preparing together with keep track of stock amounts. Production sectors that will look for velocity plus level could embrace RPA in a number of procedure which includes expenses regarding components, customer support, strategies, ENTERPRISE RESOURCE PLANNING robotisation, info immigration, production stats plus conformity method.

### ***Robotic Process Automation Governance, Center of Excellence***

Upon governance, Willcocks, ainsi que ing. (2015) used numerous solution to discover regardless of whether current governance constructions or even platform can always match

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de all of them, as well as the consciousness plus maturation associated with RPA within the businesses any kind of time 1 time. These people figured, the majority of RPA adopters find a way to match RPA inside the present governance buildings plus construction, along the way RPA will certainly stilly develop the particular governance since it grows in to new company procedures even though several sections. To get RPA achievement in level, it is important to light up the extensive RPA technique that will in-line along with growing company procedures in addition to technologies requirements. 1 authenticated method to integrated software administration is using a CoE. It is very important possess a clear governance managing the particular development and even procedure regarding robots, therefore, it is going to offer guarantee from the regular associated with motorisation, decreasing dangers together with avoiding remodel (Rodrigues, ainsi que ing., 2020).

Components of an RPA CoE

### **Adopting 9.8 Robotic Process Automation in Auditing**

Couple of experts talked about the particular possibilities associated with RPA along with automatic company procedure. Kokina plus Blanchette (2019) discovered growing styles encircling robot execution with regard to data processing plus financial jobs. These people assessed the particular determinants in order to RPA setup plus suggested that the brand new knowledge of danger plus inner regulates inside an RPA rendering should be resolved simply by inner auditors.

Moffitt, ainsi que ing. (2018) imagined the ongoing future of review simply by presenting the idea of RPA in addition to detailing the utilization within auditing. They will suggested a good RPA-based audits, where the auditor's placement is going to be repurposed through

information enthusiast, processor chip, décrit, and even disseminator in order to primarily putting an emphasis on the particular evaluation facet of review methods. Additionally they outlined the advantages of implementing RPA inside examine methods where the procedure will be repeated together with guide throughout character, like income screening, is most effective with regard to computerized. The particular scientists additional raised typically the concern to have an RPA-based audits, for example: dependability regarding RPA equipment, stability associated with information, personal privacy plus protection plus economics involving RPA.

Huang in addition to Vasarhelyi (2019) furthermore recommended the four-stages RPA platform regarding RPA-based review. Within their offered construction, the very first phase teaches auditors in order to choose suitable taxation processes intended for software depending on 3 needs: the particular RPA requirements, information suitability, as well as the process difficulty. The 2nd phase entails housing that will aid auditor within altering their own present exam program, increasing the particular achieve from the method and even confirming info standardization. Within the 3rd period, the particular platform recommended that will auditors include in one facility. The final level would be to assess together with run typically the RPA-based review process by simply analyzing the particular overall performance, evaluating typically the recognition or even review chance, plus checking the particular procedure.

### ***Robotic Process Automation Risks***

Within being able to access the extra dangers presented towards the businesses throughout the ownership of the Business Source Preparing (ERP) program, Saharia, ainsi que ing. (2008) outlined the existence of the danger through the execution as well as the functional phases. Based on their own study, companies frequently dealing with bad task preparing plus manage, plus does not have specific abilities required to personalize the device plus fill this along with company information. Dangers stay in the functional stage as well, once the incorporated method provides associated with reduces plus disrupting the particular firm's company procedures. Regardless of the substantial company danger comes from a good ENTERPRISE RESOURCE PLANNING setup, participation associated with inner review in order to identify in addition to reduce possible dangers seems to be crucial.

Kovanen (2020) suggested that will, agencies confronted brand new difficulties and even hazards on typically the re-homing of recent technologies. Within the girl research, 7 important danger places had been recognized inside the execution associated with smart

software: dangers regarding technologies, regulating, personal privacy, cybersecurity, people- together with organizational-related, honest plus monetary.

A few experts possess determined difficulties that the business might encounter following the rendering associated with RPA, like automatic robot servicing, not clear department involving obligations among RPA in addition to company customers, insufficient knowledge of RPA and even requirement spaces (Santos, ainsi que 's., 2019). RPA can easily boost conformity and minimize chance. Nevertheless RPA may also expose hazards in case improper regulates have been in location. RPA actions will be constant, any kind of mistake turns into a systemic plus common problem throughout of which enterprise procedure together with info arranged, it costs a great deal towards the businesses. An additional possible dangers might be happened for example illegal access acquired simply by anyone to modified or even utilized to carry out not authorized digesting. I ALLA FALL have to know how the business is definitely RPA and exactly how that will effects the threat user profile by simply considering commonly regarding publicity throughout several types of danger (PwC, 2017a). PwC (2017a) furthermore founded the RPA danger platform associated with 5 important kinds of dangers should be thought about: professional, specialized, modify administration, functional plus practical.

Federal government RPA Local community associated with Exercise (CoP) (2020) pressured more effective distinctive hazards of which produced combined with the RPA execution. Fake providers present a substantial danger within big companies with no enterprise-level governance framework or perhaps an official strategy with regard to acquiring RPA solutions. The particular effect regarding problematic reasoning in addition to digesting mistake may have considerable influence and even added to 1 from the main crucial chance locations. Time together with power necessary to check out, assess plus remodel running mistake can make important work loads regarding RPA system plus personnel. Inner regulates specialists should cautiously determine dangers in addition to suitable thresholds to find out if the possible legal responsibility of the mistake exceeds the particular effectiveness obtain of getting the particular software procedure. RPA attempts and even applications could be complicated to handle, given that they need implementing a brand new technological innovation inside a powerful construction, along with just restricted growing governance. Typically the set up involving RPA might affect typically the segregation associated with responsibilities given that one person can fill up the particular part associated with programmer, specialist, plus owner in the software. RPA require a positive motorisation upkeep to interact about the changes from it technique, for instance

program up-dates. Finally, RPA produced substantial plus long lasting capability inside the corporation, when problems occur using the software, the business may possibly no more possess a company subject material professional that knows typically the end-to-end company method to fix the problem. This includes the chance that will workers will forfeit the particular institutional understanding related to finishing the particular now-automated procedure.

Gartner (2018) pointed out 3 forms of dangers that will connected with RPA, specifically organization hazards, governance dangers together with lawful hazards. Company dangers incorporated improper human being program incorporation, bot-enabled scams, bot-enabled THIS short-termism, RPA-initiated work modifications plus RPA overreach. Enterprise dangers is primarily launched running a business atmosphere. Governance dangers integrated RPA merchant supervision, RPA execution managing, RPA segregation regarding tasks. Governance dangers advised business to build up a strong danger governance to keep RPA. Lawful hazards incorporated lock-in threat by which screenplay might be antagónico among techniques because of a few RPA supplier utilization unintentionally secure the corporation in to particular suppliers.

Lacity plus Willcocks (2017) offered 8 danger groups domain names encircling PARA inside firm. You will find: technique dangers, task hazards, finding dangers, detailed dangers, device choice hazards, modify control dangers, stakeholder buy-in hazards plus maturation dangers. Whilst Giesbers (2020) additional clarify typically the finding hazards, in business dangers, alter operations dangers, in addition to stakeholder buy-in dangers within the viewpoint involving interior manage, along with a new concentrate on protection and even conformity. This individual likewise offered handle structure in line with the crucial hazards classes within linked to inner manage.

Deloitte (2018) created the particular Deloitte risikomanagement system with regard to RPA of which offers a definite see concerning the varieties of chance which usually have to be regarded as whenever auditing some sort of BOT-enabled company. The guaranteed together with up to date RPA surroundings needs efficient administration plus checking with the 8-10 danger websites throughout the 4 period associated with ROBOT enactment lifecycle. Dangers regarding permit conformity in addition to RPA technique and even governance presented 1st stage associated with guidelines that are the procedure testing together with evidence of idea. Information seepage plus level of privacy plus internet risks

have to be regarded through the 2nd period involving company situation in addition to seller finalization. Throughout the RPA inclusion, event administration and even company continuity together with corporate compliance would be the best factors regarding I ALLA FALL. Last but not least would be the dangers associated with determine plus access administration in addition to guaranteed company method in the final stage regarding RPA Center involving Outstanding where the businesses achieve robotisation objectives plus enjoy the entire associated with the answer provides.

ICAEW (2018) recommended 7 kind of hazards involved with applying RPA: a lot of automated programs to have a business to handle, procedure unacceptable intended for automating, automated programs have zero reasoning, code mistakes, breakdown associated with robot, harm usefulness and even programs stops working. The particular specialist more describes ramifications of every dangers and also minimization that will inside auditor may designed to slow up the hazards.

In addition, Priyadarshi (2019) in addition pointed out couple of essential danger regions of which inner examine should think about whenever analyzing RPA execution: misconfigured human being program the use, overdone software, difficult transform administration, addition breaks plus mismanagement, out of line 3rd events, cracking risks, cybersecurity dangers plus not enough safety standardization to get RPA. The particular investigator remarked that RPA launch generally include method upgrade or even procedure enhancement, which usually presenting fresh dangers for the companies. Because group take brand new threat situations that are included with usage associated with RPA, typically the I ALLA FALL part will certainly always increase.

### ***Internal Audit Processes***

Based on Rissi plus Sherman (2011), based on the kind of inner review, an indoor auditor frequently evaluations proof with regard to conformity along with founded requirements. The very best exercise within efficient THIS auditing would be to begin with an awareness associated with company features, to recognize which usually THIS facilities provides all those features, and also to after that think about the range from the examine in addition to regulates ideal for the THIS functionality. Bierstaker, ainsi que ing. (2001) decided paperless audits will end up common where taxation customers often change in the direction of paperless techniques, as well as the inner exam procedure is going to be depending on a lot more review software program to improve the particular auditing procedures. This individual

furthermore mentioned that will because businesses are progressively more theoretically advanced, auditing methods through starting to finish ought to talk about and even immediate the company procedure for the customer plus able within determine shows.

When it comes to auditing AJE, Firouzi plus Wang (2020) stated that will rather than audits various groups through numerous places having an insufficient knowledge of AJAI plus the dangers related to this, there ought to be a built-in review group along with varied experience plus encounter upon AJE to pay attention to AJAI audits. These people suggested a good AJE Inner Review Platform which is compares to the particular AJE lifecycle. Inner auditors received a larger knowledge of how you can offer guarantee around the regulates influencing AJAI versions due to typically the platform.

Moorthy, ainsi que 's. (2011) after that recommended the particular examine techniques plus strategy might be at first focusing on info with regard to collection together with evaluation which will supply proof of the results regarding manage weak points where inner auditors understand or even believe important manage disadvantages within performing audits involving techniques, details or even company operations. This method may produce proof of the results associated with poor settings and could be considered a more efficient technique auditor's period compared to performing considerable studies from the techniques plus manage conditions to distinguish in addition to evaluate settings.

The particular Company regarding Chartered Accountancy firm involving Indian (2018) elevated the particular area of issue the potential risks within an automatic atmosphere, where the potential risks might have effect on review processes in various methods. First of all, auditors might not be capable to response around the information from techniques where this kind of danger is not really mitigated. Almost all types of info, info or perhaps reviews which they acquire coming from techniques needs to be thoroughly tested plus corroborated regarding completeness and even precision. 2nd, auditor will never be capable to respond about automatic handles, computations, data processing treatments which are constructed into typically the programs. Extra taxation function might be needed in this instance. 3rd, the particular exam statement can also need to be altered in most cases because of the regulating dependence on auditors in order to statement in inner monetary manages of the organization. Consequently , the particular auditor will be able to show the way the dangers had been recognized and exactly what review proof has been acquired together with authenticated to deal with these types of THAT dangers. They will additional launched various way of screening within an automatic atmosphere. Within an automatic

atmosphere, auditor might examine the application form construction; examine the device records; examine paperwork of this procedure your the test unfavorable screening plus notice mistake information.

KPMG (2018) directed 6 locations that needs to be evaluation simply by I ALLA FALL throughout auditing the particular RPA surroundings. 1st are typically the technique factors. I ALLA FALL need to search for an obvious eyesight from the objectives plus objective in the smart program of which implies that administration acknowledges in addition to facilitates that will perspective. Because brand new machines, equipment, businesses, plus incorporation choices are usually created, the particular I ALLA FALL must also think about exactly how software modifications the entire technologies atmosphere plus system. Typically the I ALLA FALL have to access the business enterprise procedure of which implementing RPA and even taking the hazards plus getting ready to handle individuals dangers. Smart software entails enhancements in order to personnel's skills plus set of skills. To be able to satisfy these kinds of requirements, the particular I ALLA FALL will need to aids businesses in order to redeploy or even sponsor skill. Probably the most considerably, the particular I ALLA FALL should certainly determine typically the economic, functional, together with conformity handles that will possibly could be automatic included in the answer or even is going to be impacted by that. Interior review looks at techniques in order to confirm the particular completeness plus reliability of most files in addition to details prepared by simply smart motorisation and even assess adjustments made to recognize each time a ROBOT does not carry out since it ought to. Lastly, an effective governance system for that execution associated with RPA must be structured on typically the I ALLA FALL. The particular governance actions are built to see whether the particular anticipated advantage continues to be recognized plus is constantly on the level to fulfill the particular tactical enterprise objectives.

Provided the particular dangers came about from your application regarding RPA, Deloitte (2018) highlighted the review method stages adjustments that require to become regarded as from the inner auditor, like: preparing, walkthrough, style assessment, working usefulness plus confirming. Within the preparing stage, the good comprehension of the surroundings where the particular robot is going to be utilized should be accomplished. Following the auditor recognizes there are automations within an atmosphere, an expert using the essential skillsets ought to be contained in the staff, from typically the walkthrough phase to check the hazards connected with every robotisation. The particular auditor should get because of treatment in order to scope-in the particular robots which can be straight relevant

towards the tests. When it comes to a new walkthrough of the computerized surroundings, the program code walkthrough can also be important. Typically the auditor need to evaluate if any kind of exclusion reviews are usually created by typically the robot. Ultimately, the particular auditor must examine the kind of terme with the android along with other methods, as well as acquainted with typically the robot settings.

Struthers-Kennedy (2018) pointed out the particular execution involving RPA extended taxation abilities. RPA allowed typically the I ALLA FALL to be able to move past conventional investigator or even precautionary strategies along with regular creature demands in order to constant auditing, permitting a good review period which could possess formerly used many weeks nearly immediate. To be able to be familiar with functions adhere to to create exam artifacts together with job in order to handle these types of procedures, automatic creature collecting will even permit inner review to become a lot more independent simply by participating with assorted sections. Produced artifacts could be saved on the program routine inside a central database and extra crawlers could be designed in order to tick-mark facts to help the interior examine tests procedure.

Within auditing RPA, Bryan (2019) likewise motivated review innovator to make sure that a highly effective RPA program governance strategy is in position plus adopted; associated regulates inside RPA execution are not necessarily unintentionally removed plus fresh risks possess suitable settings set up; some sort of clear system is within spot to effectively manage procedure exclusions which might be prone to increase since deal quantity raises; plus recently computerized software has adequate plans in position to keep vital procedures in the event of deliberate or even unintended RPA program black outs.

### ***Skillset of Internal Auditors***

Proficiency is identified by World-wide Federation associated with Accountancy firm [IFAC] when “being allowed to execute a function function in order to described requirements with regards to true doing work environment” (IFAC, 2003). Inside the THIS atmosphere, skills is usually referred to as a couple of IT-related know-how in addition to encounters which an information employee techniques. These kinds of expertise are vital to allow management experts to execute all their responsibilities (Bahador and Haider, 2015). In addition to, inside auditors need to simply perform offerings which is why they have got typically the required knowledge, requirements, and even encounter, in accordance with Rule among bodybuilders four. one of the Manner associated with Values. Governed simply by Html code associated

with Values Signal 5. three or more, inner auditors need to steadily grow their effectiveness, and also the performance plus performance of these providers (IIA, 2019).

Within 06\, the particular IIA endeavours to raised be familiar with enlarging get to associated with interior auditing practice around the globe simply by task a global Usual Entire body expertise (CBOK) research. Through the review, with regards to standard expertise, 3 usual primary expertise were acknowledged: conversation expertise, difficulty identity together with method abilities, plus staying in touch up to now along with community plus corporate adjustments plus high quality common. With regards to behavioural abilities, privacy in addition to interaction seemed to be the best key behavioural expertise. Regarding specialized abilities, a couple of primary specialized expertise had been accepted: comprehending the company and even chance evaluation together with handle evaluation methods. With regard to understanding, risk-based examine preparing plus using CAATs had been remarkably identified by the interior auditors (Bailey, 2010).

Hass, ain approach. (2006) talked about typically the skill necessary by inside auditors offered the particular growing opportunity regarding inner auditing training through the entire organization surroundings. He or she offered number of elements that will caused by the particular altering dependence on the particular skill involving inner auditors, including the IPPF, rules, affect associated with SOX, threat evaluation, enhanced demand from customers within the I ALLA FALL, advancement THIS, increase associated with risk-based auditing, objectivity, plus arranged point of view. After that, typically the investigator overview his / her studies using a record of which contains fifty abilities plus skills that will needed because of the inner auditor.

Kovanen (2020) discovered of which interior auditor expertise have been viewed as the largest complications inner taxation when ever auditing bright software simply by equally, interviewees plus members inside the girl explore. This girl recommended auditors' skills could be improved upon in addition to preserved by simply schooling and when it's not at all likely or even good, skills spaces may be included based on a resourcing units. Inner exam must be proficient with data-analytics resources and maintain plan internet basic safety, legislation and even moral debate.

Pawlowski (2019) shown various growing skill sought after meant for inner auditor in making a direct effect for the corporation inside the RPA-era: abilities of information technology together with info stats to be able to find, anticipate, stop plus consider dangers, familiarity with behavioural knowledge to know expanding demand for behavioural economics to see

decision-making in addition to electronic digital literacy with the use of methods, systems, bright gadgets to control hazards and even handles.

You will discover more effective principles necessary simply by review workers conduct the interior THIS review: conversation together with effort abilities, sector plus procedure understanding, job growth, expert expertise, character personality, technological abilities in addition to information, plus examine abilities plus reassurance that presented within the research associated with Havelka and even Merhout (2013). The particular 7 ideas definitely will straight result the task plus scheme in many methods. For that reason, the extent plus various ability, information, together with potential from the taxation staff members can permit or even restrict the strategy utilized for the particular THAT exam.

Within a THAT review, THIS examine expertise are usually considerable as it auditors has to be both equally auditors also it pros. Through a great examine viewpoint, inside auditors who else customarily accomplish economic, detailed, plus conformity audits with their companies may additionally must be pre-loaded with the particular THIS proficiencies inside the inclusion, procedure repairs and maintenance regarding THIS devices in a corporation. In case the I ALLA FALL will not own these kinds of abilities, typically the THAT review could possibly be executed simply by various other divisions, co-sourced, or perhaps entirely outsourced (Abdolmohammadi as well as Employer, 2010).

Typically the individuals throughout study executed by simply Cooper, tout autant que way. (2019) pointed out the significance of open accountancy firm of purchasing, at the very least, a comprehending involving RPA. The particular specialist now could be necessary not simply together with sales in addition to auditing abilities, this can be a trend regarding auditor to get conditional expertise and also realize files stats. Their particular analysis figured auditor with the comprehension of the particular abilities and even RPA together with computer-programming encounter have a very aggressive benefit. Additionally , different abilities like increase essential pondering plus interpersonal abilities can be fairly significant. Considering that auditor are anticipated to end up being imaginative in addition to revolutionary so as to fix the particular rising concerns.

## 2.7 Limitations

The particular research associated with earlier experts examined with this section have demonstrated the particular associated effect associated with RPA execution towards the I ALLA FALL. This particular studies have recognized numerous prior researchers' functions plus their own suggestions plus results are usually offered because over. Nevertheless , the particular books offered consists of of numerous various views because of various RPA software program ownership within their businesses. Furthermore, RPA being a growing technologies is within the particular incipient phase, in contrast to setup regarding ENTERPRISE RESOURCE PLANNING or even impair processing, there is certainly insufficient an alternative summary of typically the execution involving RPA as well as the effect on I ALLA FALL. This particular study used 3LOD design or in other words that will I ALLA FALL since the 3rd type of protection is in charge of dealing with the particular effect associated with RPA execution. In addition, there exists insufficient viewpoint performed simply by Malaysia business or even admonitory company to help check out typically the execution regarding RPA as well as the influence on I ALLA FALL. A lot more thoughts in regards to this particular research must be discovered. Consequently , this particular studies carried out to get a greatest exercise with regard to I ALLA FALL involving Malaysian businesses to deal with period associated with RPA.

### **Methodology/Materials**

This particular section offers an summary of the information selection technique employed to solution the study queries and also to fulfill the study goals. This particular part demonstrates the particular demonstration associated with study strategy showcasing qualitative strategies. This particular section is recognized in to a number of places: analysis style, analysis test, range regarding job interview, exploration arrangement consists of the particular job interview queries, information evaluation, plus honest concern.

### **Research Design**

The effectiveness of qualitative studies the ability to sophisticated calcado explanations showing how individuals see an investigation issue. Qualitative research is versatile, also it enables a lot more motivation plus version within the researcher-participant partnership. This particular level of versatility signifies the type of knowledge of the issue becoming attacked utilizing the technique. When compared, the quantitative research that will collects "closed-ended" information which makes it possible evaluate reactions efficiently is actually rigid (Mack, ainsi que ing., 2005).

This particular research is really a qualitative study to comprehend the particular effect associated with RPA execution around the I ALLA FALL. Qualitative information, along with focus on people's encounters, that is nicely match with this examine with regard to learning the subject. Qualitative analyze offers an extensive summary of real life interpretation in addition to search (Kovanen, 2020). This particular study subject will be growing in neuro-scientific data processing plus auditing, and also within analysis. RPA continues to be not really common within the Malaysian marketplace; consequently , qualitative studies appropriate exploration approach. Main information will be gathered via job interview. It really is was executed to go after specific info surrounding this matter.

Professionals from your industry regarding inner or even THIS auditing and even RPA within Malaysia will be asked to higher be familiar with RPA setup together with their own influence towards the I ALLA FALL. The option for people 2 types of surveys takers is created, since the RPA designers offers experience within building plus applying RPA while the interior also it auditor offers knowledge within inner and it also auditing and may consequently measure the analysis towards a more extensive see. Consequently , 2 units involving meeting queries is going to be ready in line with the regions of competence where the auditors in addition to RPA designers involved with. The particular semi-structured job interview classes are carried out using the life long fifteen in order to half an hour.

### **Research Sample**

Inside a qualitative research, the particular test dimension utilized is frequently smaller sized compared to that will utilized in the quantitative examine. The qualitative analyze concentrates on exactly how plus the reason why of the specific problem. Specific job interview function is not really regarding generalizing the eye of the wider populace and seem to concentrate on speculation screening, rather much more initiatory in addition to zustande kommand in the procedure. The aim of grounded concept and even specific selection interviews into set up "data groups after which analyze associations among categories" whilst talking about just how study individuals "lived or even worked well experience" could be comprehended. The standard of information, the particular range from the study, the size of the particular subject material, the quantity of helpful plus obtainable info could be gathered through every participator, the usage of shadowed info, as well as the qualitative strategy together with evaluation utilized are believed key elements within identifying the particular trial sizing of the qualitative review. Rather than dedicated to "how numerous participants" may be incorrect query plus the puritanismo in the method depends

upon what building typically the group of relevant conceptual groups, the particular vividness of these classes, along with the total meaning with the information (Dworkin, 2012).

Based on Vasileiou, ainsi que ing. (2018), typically the test dimensions dedication could be led in line with the experts' encounter. Within discovering a brand new plus new subject, utilizing less person interview allowed experts to handle the particular difficulty on the stats job. Vividness is the central concepts inside identifying the particular example dimension of the qualitative research. Francis, ou 's. (2010) possess recommended 2 important ideas which typically the vividness is specific: (i) analysis ought to earlier figure out a preliminary trial of research for use for that 1st circular of research plus (ii) the preventing qualifying criterion, that is, numerous selection interviews must be performed additional, the particular evaluation which may not produce any kind of brand new styles or perhaps suggestions. Used with this research, 9 professionals coming from inner also it review industry in addition to RPA is going to be selected since the preliminary small sample measurement. The particular sample proceeds till the specialist feeling the particular vividness offers built up.

The particular testing method used with this research is picky sample. Picky sample is really a sample method where typically the qualitative experts sponsor individuals who are able to offer complex plus precise home elevators the particular trend of this analysis. It really is extremely very subjective and even described from the qualitative investigator generating the particular being qualified needs entitled to typically the individuals (Statistics Options, 2015). The chosen requirements with this research are usually: (i) experts in neuro-scientific inner or even THIS auditing; (ii) professionals in neuro-scientific RPA; (iii) operating encounters greater than three years; (iv) located in Malaysia.

### **Scope of Interview**

Semi-structured selection interviews are utilized inside a qualitative stage to learn brand new ideas to create ideas. Semi-structured selection interviews are a highly effective way of information selection once the specialist desires to: gather qualitative, open-ended information; or discover participator ideas, emotions plus values in regards to a specific subject. The objective of this particular research would be to be familiar with RPA execution as well as the effect on the particular I ALLA FALL. The reason will be created according to a topic issue that should be discovered (Dejonckheere and Vaughn, 2019).

Semi-structured job interview features a short-list associated with 'guiding' queries which are supplemented simply by followup plus prying concerns which are determined by typically the interviewee's reactions. Pre-defined queries are ready throughout the job interview, interviewee will be motivated to reply to the particular inquiries openly plus suggest fresh queries (Jamshed, 2014). The particular job interview will certainly start having an easy, context-setting issues prior to shifting in order to more difficult or even specific problems. Meeting with is iterative within a qualitative research. Information series plus meaning happens concurrently, which might result in modifications in our leading queries since the research advances. Queries which are not really efficient might instantly get replaced along with other concerns and extra probe could be put to learn brand new topics elevated by simply individuals within earlier selection interviews (Dejonckheere as well as Vaughn, 2019). That research will be carried out through the outbreak COVID-19, the particular bodily conference is just not urged; therefore, the information variety of this particular research is usually via on the internet selection interviews through Focus -- the videoconferencing system. The internet meeting furthermore offered excellent versatility for that job interviewer plus members. Furthermore, Focus has got the benefits of documenting typically the job interview program in addition to keeping this straight to relieve information administration.

This particular research is Malaysian dependent; consequently , the particular individuals were chosen depending on picky sample based on business operating encounter and even educational certification. Individuals is going to be contacted by means of LinkedIn, plus authorization is going to be requested together with from every interviewee just before performing typically the meeting. This really is to make sure that this happened in their own determination. A job interview invite that will includes private permission plus job interview queries is going to be delivered prior to the meeting program. The reason, summarize from the research, plus some important queries will probably be delivered to the particular interviewee for his or her planning combined with the invites. With this examine, 4 inner auditors, 1 THIS auditor in addition to 4 RPA designers had been evaluated therefore these people grew to become the particular examples.

### **Research Instrumentation**

Explaining the particular ideas utilized in qualitative study requires an a lot more open-ended strategy. Throughout a job interview, the particular queries typically the specialist chooses will certainly figure out what information this individual eventually ends up getting from your individuals. In contrast to within quantitative analysis by which obvious meanings should be

clearly said ahead of time, qualitative exploration enables the particular principles description in order to come out throughout information evaluation (DeCarlo, 2018). The particular suggestions with this research obtain from your procedure for thinking as to what continues to be noticed, utilizing an initiatory method of theory. Throughout the study, qualitative experts inductively set up important aspects plus always improve plus assess the ideas via theory plus operationalization. Theory may be the procedure through which the particular specialist identifies typically the ideas or even constructs to become examined, in addition to operationalization may be the procedure where the particular scientists arranged signals in order to gauge the constructs (Brent Deb. Slife and Yanchar, 2016).

Through the job interview program, open-ended queries were created for the particular interviewees to be able to solution the investigation query. The particular asking procedure is restricted in order to open-ended queries towards the study's constructs: the important thing danger places, within IA procedure and even skill needed from the inner auditor. Every create is separated in to 2 indications: execution together with specialized, in order to gauge the create. The particular concerns inside every indication arranged are made in line with the regions of experience where the interior also it auditors plus RPA designers take part in. Within the some other terms, 2 group of job interview queries are ready provided the various business potential customer where typically the inquiries associated with execution indication is going to be clarified simply by inner also it auditors, plus RPA programmers will certainly solution the particular queries associated with technological indication. Typically the thought at the rear of every meeting query being ready plus requested is going to be talked about throughout Section four.

### Interview Questions

Constructs	Indicators		Research Questions	Instrument
	Implementation	Technical		
Key risk areas	What are the risks in auditing a bot?	What are the risks when designing an RPA?	What are the key risk areas within RPA	Open-ended question 1-

	What is your recommended RPA risk management model?	What are the risks during the operational stage?	implementation in an organization?	5
		What are the risks after the implementation of an RPA?		
Internal audit process	Are there any needs of transformation of the internal audit process to audit RPA?	What are the differences of the RPA audit trail compared with other technologies?	What are the changes in the internal audit process for organization undertaking RPA?	Open-ended question 6-10
	What do you think are the differences in auditing the human work and auditing the robot work?	Do you think RPA would reduce the function of IA?		
	Do you think if RPA would reduce or increase the tasks of IA?			
Skillset	What are the skills required in auditing the bot?	Do you think the IAF is critical in assisting an RPA implementation?	What are the skillsets required by internal auditors?	Open-ended question 11-14
	What are the skills required in assisting RPA experts in	What are the skills needed in monitoring		

	implementing RPA?	the bots?		
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## Data Analysis

Preferably, qualitative information evaluation happens simultaneously because info selection, to ensure that experts may produce a good growing knowledge of study queries, which notifies both sample as well as the concerns becoming requested. Ultimately, this particular iterative files selection plus evaluation results in a place within the variety of information where simply no brand new groups or even concept occur. This really is known as vividness, meaning that the gathering associated with information is total (DiCicco-Bloom and Crabtree, 2006).

With this study, the particular thematic strategy (TA) is going to be used since it is probably the most available qualitative inductive strategies also it entails methods which are popular among the majority of forms of qualitative research. KONSTRUERA is utilized to assess the majority of kind of qualitative information like selection interviews, concentrate organizations, in addition to qualitative studies. Experts may catch powerful, untidy and even inconsistent partnership that will dominate within the real life. KONSTRUERA allowed the particular specialist to discover well known styles plus associations in order to significantly tackle the study queries from the research (SAGE, 2019). Based on Braun together with Clarke (2013), TAG requires 7 actions: transcribing, reading through plus familiarization, code, looking for designs, critiquing styles, determining plus identifying designs, plus finishing typically the evaluation.

Transcribing will be once the investigator translation the particular documented info in to created files. Transcribing should be done to be able to transform the particular voiced term towards the composed phrase in order to help evaluation. When the transcribing will be full, typically the specialist ought to go through this in addition to acquaint using the files, the particular records. To be able to discover points appealing, it is crucial for that specialist to know the information (SAGE, 2019).

Code appertains to the recognition inside the whole dataset of most associated bits of information to be able to response to the investigation inquiries. Semantic program code method will be utilized with this research, since the analysis desires to provide participants' encounter towards a more realist plus detailed method. Specialist begins code the particular

records and even recognizes typically the semantic rules, the particular computer code could be branded having a title which is produced from the information by itself. Three study queries is going to be created for capturing the information (SAGE, 2019).

When the code in the whole info arranged will be finish, it really is then your trying to find styles inside the files. Pattern-based evaluation allow typically the specialist to discover prominent information features which are essential within dealing with the study issues. The particular rate of recurrence with the rules seems have to be contemplating cautiously because particular unique codes of which capable assistance the solution for the analysis query might usually do not show up frequently. After that, the particular investigator must determine typically the wider habits on the information which can be recognized as styles together with sub-themes to be able to solution your research query. Concept can also be termed as a main arranging idea, some unique codes, that is a number of suggestions or even elements that may be recorded within specific concept. Typically the topics plus sub-themes must be correctly described plus rename to be able to much better framework the outcomes in addition to solution (SAGE, 2019).

Finally is the particular building from the examination. Normally, this is where typically the ideas from the individuals could be unadulterated, described and even informed in a manner that is usually each sincere to the people individuals together with highly relevant to visitors. There are a number regarding ways scientists could synthesise plus existing their own results, yet immediate estimates from your individuals should assistance any kind of findings attracted from the analysts (Austion and Sutton, 2015). With this last phase, the introduction of themes or templates in addition to sub-themes can response to the investigation problems.

### **Ethical Consideration**

This particular research requires obligations in order to adhere to the particular honest concepts to safeguard the eye from the individuals to be able to make sure the information protection. The situation associated with moral studies the foundation of the examine, the particular specialist ought to make sure that individuals secure through damage and they are guarded through unneeded tension. To prevent undesirable study problems, therefore, it is crucial to make sure that cautious preparing plus honourable requirements are followed (Cacciattolo, 2015).

Because of the research process's specific character, lawful problems possess specific dominance within qualitative study. Interview-research abounds along with honest concerns. There are some elements to think about whenever performing an internet job interview research. Many are coupled to the danger that this job interview participator will certainly unwillingly uncover a lot more than has been meant due to the fact on the internet details or even conditions consist of information not really specific within the permission contract (Salmons, 2012). Knowledgeable permission is really a procedure with regard to making certain individuals determine what this means to interact inside a study to find out whether they wish to take part in a good conscious, planned way. Selection interviews permitted experts to fulfill along with other folks, plus permission must be aware towards the participator. With this research, a job interview invite (see Appendix) will be ready in addition to deliver in order to possible members which includes honest agreement like the reason for the study, the truth that involvement will be non-reflex which you can pull away anytime, exactly how privacy is going to be guarded, the particular info from the investigator (Mack, ainsi que ing., 2005).

Because qualitative studies speaking, it really is essential to keep information privacy. The particular specialist used Focus since the software program could safe the particular report and even shop classes without having alternative in order to thirdparty application. This particular function is important to guard typically the gathered information. Additionally , the particular records in the meeting will never be distributed to anybody other than any time asked for from the interviewees.

### **Results, Findings and Discussion**

This particular section allotted significance in order to information demonstration plus evaluation in line with the info gathered. The outcomes are offered plus analysed in line with the records info accumulated throughout the one-to-one semi-structured job interview

classes along with 2 categories of individuals: review professionals in addition to RPA designers.

2 units associated with job interview queries were developed depending on both execution plus specialized signals are ready. Reactions through each units regarding job interview queries had been incorporated to reply to the study concerns. 4 inner auditors and something THIS auditor possess clarified the particular setup indicators' inquiries (see Job interview Query I-1 in order to I-7) through the job interview, and 4 RPA programmers have got solved typically the technological indicators' issues (see Job interview Issue T-1 in order to T-7). With this section, the particular participants' reactions towards the semi-structured queries requested within the selection interviews are documented. The information gathered from your job interview are introduced within the records type, in fact it is analysed simply by performing in-text code evaluation. These area will be organized because adhere to: the very first area layed out typically the profiling associated with members; the 2nd area organized the particular replies coming from each execution and even specialized job interview problems which were in order to immediate the study queries, as well as the 3rd area shown typically the in-text code research in line with the reactions by each signals.

**. Respondents Profiling**

The particular surveys takers associated with execution signals composed of 1 main monetary official and something team inner auditor using more than two decades regarding encounters in neuro-scientific auditing, 1 inner review supervisor along with 10-15 many years of encounters, 1 inner auditor and another THIS auditor where each of these possess a few in order to six years involving operating activities in neuro-scientific inner auditing.

The particular surveys takers associated with specialized signals queries had been 4 technologies enablers that will main within RPA advancement, where the majority of individuals have got a minimum of 10-15 a lot of functioning encounter. Whilst you have three or more in order to six years regarding operating encounter inside allowing RPA answer. That research is Malaysia-based, all of the individuals are usually possibly Malaysian and have worked well plus located in Malaysia no less than three years.

**Respondents Profiling**

	<b>Professional Qualification</b>	<b>Years of working</b>	<b>Current designation</b>

		experience	
<b>Respondent number code for implementation indicator</b>			
R1	ACCA, FCCA	15 years and above	Chief Financial Officer
R2	Master's degree, CIA	15 years and above	Group Internal Auditor
R3	Bachelor's degree	3 to 6 years	IT auditor
R4	Bachelor's degree, ACCA	3 to 6 years	Internal auditor
R5	Bachelor's degree, CIA	10 to 15 years	Internal audit manager
<b>Respondent number code for technical indicator</b>			
R6	Bachelor's degree	10 to 15 years	Technology enabler
R7	Master's degree	3 to 6 years	Financial system specialist
R8	Bachelor's degree	10 to 15 years	RPA developers
R9	Bachelor's degree	10 to 15 years	Automation analytics

### Data Findings

This particular program allocates significance in order to information results in line with the info gathered. With this program, the particular specialist will certainly talk about the important thing styles that will come about from your in-text evaluation after which combined the topic through execution plus specialized signals to be able to solution the study queries, fulfill study goals, plus resolve the investigation issue. With this framework, the particular individuals that clarified the particular setup queries (internal also it auditor) are usually jointly known as "implementation interviewees, " as well as the members that clarified

typically the specialized concerns (RPA developers) usually are along known as “technical interviewees.”

### ***RQ1: Key Risk Areas Within RPA Implementation***

When it comes to execution signals, from your in-text code evaluation, 4 from 5 interviewees pointed out a few dangers round the automatic robot. Among the interviewees outlined that will “Intervention from the atmosphere encircling before you decide to arrived at the particular robot, is exactly what you will have to review [...]” (R1). The particular interviewee additional pointed out that this program customers, typically the designers, training towards the robot plus correct associated with access as the hazards round the automatic robot. Between the dangers, 3 of these pointed out the potential risks from the correct regarding access. R1 explained “[...] who are able to modify a product within the android plus that has access for the bot” whilst R4 CARD keep that will “the 1st danger would be the access more than proper (of the particular human)”. In order to programs, the robot is simply an additional consumer that must authenticate to utilize the majority of techniques. To obtain the android, access manage with regard to people plus robots are usually similarly crucial (Tolly, 2019). An additional interviewee (R3) demonstrates of which “There a few some other dangers which includes [...] as well as the opportunity involving pvp bot access”. RPA software program robots need happy access to do.

Information safety is furthermore between the main danger that should be regarded as. RPA setup includes a number of dangers plus inner fortunate access appropriate which have the to become used. This could result in the particular privacy, honesty in addition to dependability of information that will business procedures becoming jeopardized (Capgemini, 2019). One of many interviewees (R4) described cybersecurity dangers like cyber-terrorist plus ransomware, along with other interviewees outlined the information associated with ethics for example “[...] if the leveling bot transformed away typically the sincerity associated with data” (R3) plus “[...] information condition [...] we have to know how the particular robot produces and even keeps typically the data” (R5).

Specialized dangers will also be recognized throughout the in-text code evaluation. The particular developer’s abilities plus training towards the robot were likewise seemed to be the important thing concern whenever auditing a new robot. R1 offered “Auditors will have to examine [...] that advise the actual android will [...]” together with R2 highlighted “[...] if the program is arranged properly [...] whether or not the individual who really does the particular

program create this properly” plus “[...] if the individual that deals with the particular robotic has got the correct in addition to sufficient coaching to manage it”.

The majority of interviewees also have discovered that will auditor’s abilities as the primary dangers within auditing the robot. Among the interviewees (R1) indicated that this present auditor was not qualified properly in order to deal with the hazards of recent systems. It really is in line with R2, that decided that one of the most substantial danger is the particular auditor abilities and even features in order to taxation a good growing technologies. Interviewees recommended of which auditors should be familiar with technological innovation like “[...] determine what truly does this particular android perform, exactly what does this particular pvp bot track” (R3), “it is vital regarding auditors to comprehend typically the RPA” (R5) together with “[...] concerning the teaching plus learning the robot’s limitations” (R2). This particular chance refers in order to RQ3 of the research, which usually is designed to look at do you know the skill needed from the interior auditors.

From your selection interviews, the particular rendering interviewees contain the exact same viewpoint that will any kind of technology-related danger platform could be modified for an RPA risikomanagement design. The danger administration type consists of controlling hazards confronted from the corporation in general as well as the people associated with almost all functional techniques. Usually, the particular Panel associated with Selling Businesses from the Treadway Commission rate (COSO) Business Risikomanagement (COSO-ERM) construction plus the platform in the Worldwide Business associated with Requirements (ISO) 31000 collection are usually more popular intended for organization-wide risikomanagement (Horvath, 2020). “IT-related risikomanagement versions are comparable [...] risikomanagement suggesting to get RPA may be the similar risikomanagement design these people make an application for just about all technologies associated, ” (R1), “I considered is COBIT construction since it is associated with THIS, ” (R3) plus “the design is actually standard [...]” (R4). R4 CARD more described it is difficult in order to deal with the potential risks with the robotic having an appropriate structure used three ERM, AVENIDA in addition to IIA structure with each other within Malaysia conglomerates businesses, because there is certainly much less Malaysian organization methods ERM or even RUEDO system and even IIA inside the Malaysia marketplace is nevertheless under-recognition. R1 in addition validated that the IT-related risikomanagement design usually breaks or cracks this in to about three components: “before you receive around the robotics procedure, as you can get on the procedure after you will get around the procedure [...] prior to doing some thing, you have to ensure it really

is proper, as you take action, you need to make certain it truly is correct, once you make a move, you should be sure all of the loopholes will be protected. ” Additionally it is corresponded towards the developed specialized job interview queries that will targeted to comprehend the hazards of every term regarding RPA enactment.

Finally, among the interviewees (R4) described the price of applying RPA inside Malaysian conglomerate businesses. “It might get a relatively good education hrs pertaining to workers to obtain utilized to the brand new methods [...] the device may be expensive right now [...] how s typically the administration likely to recuperate the particular RETURN ON INVESTMENT [...]”. The most typical device in order to gauge the RETURN ON INVESTMENT of the RPA may be the A lot of the time Comparative (FTE) computations (Digital Labor force, 2020).

When it comes to technological signals, from your in-text code research, unstructured procedure, character on the robot, modify supervision plus detailed together with performance dangers seemed to be the primary dangers inside RPA guidelines. Almost all specialized interviewees pointed out the unstandardized method would certainly trigger typically the failing of the RPA throughout the style stage. Implementing automated programs to operate the procedure is demanding when there is simply no regular procedure to follow along with. It is very important to comprehend the particular maturation from the operations plus choose procedures are usually standard adequate to be able to take advantage of RPA in addition to which usually functions might take advantage of harmonization and even standardization before beginning a good RPA effort. (Celonis, 2017). Interviewees portrayed that will “unstandardized procedure evoking the failing of your RPA, ” (R7), “we have to consult with functional group in order to standardize the method, for instance , gather your data just in one source or perhaps 1 method [...]” (R8), “we must ensure the task that people desired to handle will be completely organized plus adult sufficient, ” (R9). R9 additional offered a good example of the non-standardized method, “requires human being decision-making, this can not be automatic; unless of course your decision includes a particular path which can be adopted [...] procedure have to be slim adequate to get automatic. ” A good RPA programmer (or a good RPA analyst) figure out the amount of method standardization simply by umschlüsselung plus imagine the constituents from the procedures. These people gather information on the procedure end-to-end together with figure out the particular insight, result, actions, utilized documents plus files, web site plus system of this procedure. When there is virtually any insufficient parts gathered, it will likewise result in typically the failing associated with an RPA. For instance , R7 featured how

the insufficient suggestions information would certainly deactivate these to design and style the particular RPA appropriately plus utilize them efficiently.

Additionally, R8 as well stated the potential risks involving unstandardized information. RPA needed organized info, yet 80 percent associated with business information is hidden within unstructured files (Pritzker, 2020). "Data gathered through various techniques in addition to areas might boost the procedure difficulty." Procedure standardization must be done being used throughout several parts of the business; when it is not really, typically the creator or even expert will certainly rebuild and even easily simplify the procedure, which is sometimes called method enhancement. 6 Sigma plus Slim strategy could be put on enhance plus standardize the method (Fernando, 2020). "We will attempt to be able to make simpler the procedure since slim as you possibly can [...] it requires for being enhanced prior to we are able to handle the task. It will take 1 or 2 many years for that group in order to improvise their own procedure." (R9). Came from here, additionally, it is visible of which RPA has turned into a prompt to promote procedure enhancement by simply determining the procedure standardization plus chance for software.

Businesses frequently undervalue the amount regarding alter that is included with employing a brand new THIS technique. Modify administration hazards have inducted through the reactions associated with specialized interviewees. RPA inclusion needs substantial work to handle the particular modifications delivered to the procedure together with work material involving workers. Mismanaged transform managing throughout the firm may cause the particular disappointment of your software attempts (Priyadarshi, 2019). R6 shows the fact that not enough users' assistance plus not clear anticipation upon RPA can lead to threat when making a good RPA, "Lack associated with practicing company customers will certainly leads to all of them not being aware of using the particular RPA [...] brings about underutilization belonging to the robot". Furthermore, the company customers with regard to RPA are often nontechnical staff, and when they may not be been trained in using guidelines, it may also cause securities event. Simultaneously, R7 decided that will company consumers should identify the advantages of motorisation. Apart from, R7 underlined a well known fact where the coping with stakeholder is important: "[...] they have to cope with the particular stakeholder, will they adjust this particular? Will they switch that will? [...] lots of contracts have to be in position."

Information protection furthermore one of the best issue regarding technological interviewee -- "we need to make sure each of the safety plus conformity are usually followed (when

developing plus having a bot)" (R6). R6 even more featured the potential risks in case a robot along with the designer have to handle delicate information; some sort of nondisclosure contract (NDA) should be in position whenever building a good RPA. You will see the likelihood of breaking business conformity once the builder will not properly carry out leveling bot screening. R6 likewise announced of which "their person IDENTIFICATION ought to just become available to some particular component [...] we have been not really designed to obtain just a the specific components to be able to screenplay the utilization situation. " An additional 2 specialized interviewees talked about robot abilities, where interviewee R7 discussed typically the android abilities problems. This individual stated that will "when RPA eliminates your to execute the duties, RPA may have their very own IDENTIFICATION in order to sign in to their personal program. " RPA run in the demonstration coating plus continuously access various programs to work. When the qualifications leveraged simply by each RPA admins which brand new electronic labor force are usually remaining unprotected, a good opponent may take all of them in addition to obtain access for the method plus files. R9 furthermore elevated issues: "if you wished to sign in this site [...] perform they have to possess a sign in security password? ".

specialized interviewee (R6) specific of which coder generally comes after a great RPA advancement common in order to software the specific RPA idea through the style period. UiPath Automatic Organization Platform (REFramework) are among the best advancement frames that will R6 is definitely any time building RPA. The particular platform is intended to be the design template in order to the particular programmer style techniques that provide a method to shop, go through, and simply change task construction information, a strong exclusion dealing with plan and even occasion signing for all those exclusions together with related deal info. Typically the REFramework guarantees typically the program code high quality and it is helpful for constant program code high quality (UiPath, 2020b).

Apart from that, a couple of technological interviewees recognized the alter ask for coming from customers is the danger whenever establishing after applying the RPA. For instance , R7 mentioned that will "the major danger will be right after all of us apply (the RPA), the particular circulation from the method will need to modify because of a few unexpectable cause [...]it is going to lead to the particular RPA of which applied is unable to make use of [...] you will see a fresh system" plus R9 presented "after typically the android will go reside, the chance could possibly be the improve demands through the customer [...] we have to re-do the particular examination plus re-design typically the circulation [...]".

Whenever creating the particular pvp bot, additionally they consider the characteristics within the robot, like the RPA suitability along with other devices plus technique exemption. "System exclusion may be the behavior for the program, given that RPA is usually working a great deal to techniques, we must appear specific additional system's behaviors too [...] can there be any kind of safety measures breaking with this method, or even exist others that are not really section of the firm utilizing the technique? " (R6) plus "when developing the particular RPA answer, we should consider the suitability associated with RPA [...] Inside an organization regarding making use of SYSTEMS APPLICATIONS AND PRODUCTS ENTERPRISE RESOURCE PLANNING [...] our own design and style must be affordable, actually meant for some other operations in addition to techniques. " (R8)

specialized interviewee (R8) created the expense of applying RPA. "One from the dangers I could observe from the company viewpoint is typically the FTE computation [...] in case an individual does these types of numerous dealings by hand within 6 several hours, we have to analyze the way the automatic robot is going to do this as well as the price all of us conserve [...] we have to think about the permit price for your RPA furthermore [...] the hazards whilst choosing the right RPA device, in line with the price plus certificate. " Based on Moayed (2018), you will find several main groups to think about within the price part: the price tag on software application (license cost), the additional price of facilities, the price of growth as well as the expense of checking plus servicing.

A single specialized interviewee (R6) raised the particular technological dangers for instance malfunction associated with code and even routine screening. "It had not been coded or even properly designed [...] intended your own automatic robot would be to operate for just one hr, however the screening is just not getting carried out effectively [...]. " The particular inability involving suitable computer code typically the android together with tests from the leveling bot would likely lead to information stability dangers and also procedure plus professional hazards. Almost all specialized interviewees possess regarded as functioning plus exec dangers, in fact it is primarily happening following the addition of RPA. For instance , R6 stated "the dangers are usually once the robot will not perform exactly how it really is said to be finished because of environment, system, or even facilities concerns [...] when the enterprise procedures are not able to carry on using the specific procedure, and we'll have got considerable down time [...] (failure inside routine testing) ends in the particular automatic robot are not able to total particular jobs which are leftover within the email messages or maybe the discussed file, you will have imperfect duties [...] it will likewise breaking associated with conformity when the android screening is if she is not

carried out correctly. ” R7 in addition arranged that will “when software program all of a sudden straight down, for all those functions necessary to carry out inside the proceeds period, you will see several problems [...]”. R8 plus R9 displayed if crawlers cease working as a result of code failing or maybe the apps which have been automatic are certainly not operating. It costs harm to the corporation since the information can become disorderly.

The particular breakdown from the robot consequently necessary the particular treatment regarding human being. The particular involvement associated with human being has been classes directly into 2 component: organization different plus backup involving individual employees. R6 plus R9 announced that this company exception to this rule must be determined in the style stage of the robot. The company difference can also be known as “rules-based rejection” in addition to any kind of exclusions towards the computerized procedure must be designated for that individual to control (Singh, 2019). After that, “if typically the RPA program lower plus the jobs should not be completed promptly, that will ultimately require human beings to accomplish by hand [...] people may not be capable to cope up to carry out the duties in the schedule, ” (R7), “we require individuals to choose personally full the particular dealings [...] nevertheless no one understands or perhaps acquainted in order to the actual procedures [...].” (R8)

## **9.2 RQ2: Changes in the Internal Audit Processes**

When it comes to execution signals, from your in-text code evaluation, 6 regions of modifications in our inner review procedure are recognized: 3 advices (internal auditor understanding plus abilities, examine equipment, period in addition to efforts), review methods, interior review methods and even difficulties within auditing. The information together with abilities associated with inside auditor are usually extremely worried simply by the majority of interviewees. For instance , “the inner auditor must be familiar with fundamental technical information, the way the automatic program will be organized [...] the particular robot’s set up, the way the coaching is becoming carried out in order to company customers [...] main interior auditor must assess the automatic software function” (R2), “auditor have to consider the procedure about how the device works” (R5). Within an IT-comprehensive enterprise atmosphere, the majority of interviewees emphasize the requirement from it taxation abilities, “to exam RPA, typically the auditor has to realize a lot more THIS information [...] the amount of THIS auditor may be considerably improved inside a team” (R4), “there is going to be a good introduction associated with necessity upon

someone who are able to perform each financial plus technology” (R1), “IT review is very required [...]” (R5). This particular insight aspects furthermore match the 3rd study query of the research -- the particular skill needed from the inside auditors.

The 2nd modifications is going to be within the utilization of review equipment in addition to strategies. 3 interviewees realized that the usage of examine resources may modify whenever auditing within an RPA atmosphere. For instance , R4 CARD remarked that software program and even program to evaluate the organization procedure affirmation is vital whenever RPA will be used within a business. R5 decided that will “for the information honesty problems, all of us necessary numerous THIS auditing equipment, to appear in to the information and also the precise product information produced from the automated programs. ” R5 additional specific of which a few review evaluation equipment like CAATs could be used to perform the particular initial research around the information and also the precise product information taken out from your program. Whilst R1 raised the truth that because the automatic robot procedure numerous info, information exploration must be carried out in order to crone plus seem sensible out from the information.

The particular suggestions of your time and energy with the inner auditor is based on typically the execution interviewees. These people decided that period together with work offers reduced in case RPA is usually implemented within a corporation, because “an automatic robot is going to be really simple in support of 1 solution is going to be provided [...] much simpler in comparison with auditing human being function [...] I suppose we are able to slow up the personnel as much as ten individuals for that inner taxation group [...] automatic robot function is simple to become verified” (R3), “the robotic function does not need numerous errors [...] human being generally have wrong, terrible handwriting plus sluggish digesting period [...] decreased our own moment with regard to critiquing the particular document” (R4), “auditors may not must have disseminated along with people, like requesting files in addition to publishing queries [...] we all simply need to depend on typically the data” (R5). R5 furthermore remarked that RPA may considerably slow up the journey and even transport period, “as many of us do not need to visit the auditee web site [...] when the auditing program may synchronizing using the automatic method utilized [...] information may be simple taken out. ” R5 submit a concept associated with synchronizing the particular auditing software as well as the automatic technique, also it might be discovered inside long term research.

3 interviewees elevated typically the modifications in our interior exam methods through 2 viewpoints: within review focus on together with centered on your data. When it comes to review targeted, rather than auditing individual job, “the auditor will have to review the one who applications the particular software to make sure that the particular fine detail is involved [...] auditor will need to review the particular exclusion statement, the best associated with access” (R1), plus “we have to know the way the administration teaches the particular designers to perform typically the development as well as the way they qualified the organization personnel in order to value to program, how you can conquer issues with the particular automated programs, the way to the actual servicing [...]” (R2). Furthermore, among the setup interviewees (R5) remarked that. “auditors right now only have to concentrate on the information produced with the robot”. Provided typically the modifications throughout inside review procedures, additionally there is a few issues brought up by interviewees concerning the problems within auditing the particular robot. R2 plus R3 pointed out that this character from the robot : simply no judgmental entails might be difficult towards the inner auditor in the event the auditor failed to understand how to manage the particular android. R1 would be the just one suggested that will RPA increases the duties regarding interior review, the girl pointed out that will “the boost is going to be when it comes to rechallenging the procedure which they formerly understood it”. Whilst R5 highlighted that will “back for the info, auditors must ensure the particular completeness in addition to (only these people can) count on the particular data”.

With regards to specialized indications, a couple of queries were requested in order to specialized interviewees in order to refer their own see about the modifications in our inner examine procedure from the technological viewpoint. 4 styles are usually recognized: modifications involving review concentrate on, the way in which associated with gathering proof, the significance of paperwork plus the decreased inside taxation work load. Regarding altering associated with exam goal, R7 see the rendering associated with RPA change concentrate coming from performing review the procedure getting carried out by man in order to review the method carried out because of the automaton, the prospective target audience transformed through people to be able to robotic, whilst R8 recommends typically the auditor in order to measure the incorporation associated with RPA along with other techniques.

R6 pressured the significance of documents. Typically the interviewee had that this procedure paperwork is vital for that inner auditor to comprehend the actual pvp bot will. It is necessary for your customers in order to up-date the particular records too. “The primary

part of a good RPA review is actually they have to glance at the paperwork compared to organization procedures [...] company group is in charge of upgrading the particular particular proof [...]” (R6).

Almost all specialized interviewees suggested other ways to the inner auditor to gather review facts any time auditing typically the RPA program. R6 offered the type of a good RPA leveling bot which could aid the interior auditor: “the programmer could style the particular RPA software to generate a particular degree of reviews that might be helpful for the interior examine functionality [...] for example standing up-date report” (R6). R7 and even R9 outlined the advantages of RPA regarding interior taxation, which usually “inside RPA program, it provides an effective report in the step by step, such as the ?screenshots? how the procedure already been carried out [...] such as Stand out, it might not need record associated with actions delivered to create the last record, however for the particular RPA, they are going to possess actions. ” (R7) together with “in RPA, each actions used may have the sign [...] in case the robot accident between, we could open up typically the sign and find out till if with exactly what stage the particular android provides damaged [...] auditor can easily straight exam the info professional simply by RPA” (R9).

Even though 1 / 2 of the particular technological interviewees true the RPA might reduce your functionality associated with inside review, whilst fifty percent towards; almost all specialized interviewees backed of which RPA can lower the inner review work by causing the particular examine jobs a lot more workable to become carried out. Using the position upgrade review, taxation records, appropriate stage report, these people arranged up to particular degree, RPA helps reduce interior review operate. R8 described the girl see in depth, where “the robot is applied along with regular program code [...] launch several amounts of mistakes [...] certainly helps you to slow up the actions for any inner exam due to the fact we now have currently offered the particular reasoning with the android to accomplish the task. ”

### **9.3 RQ3: Skillset Required by Internal Auditors**

When it comes to execution signals, from your in-text code evaluation, 5 primary styles are acknowledged: technologies understanding, THIS review abilities, company procedure information, conversation abilities plus competing personas. 2 interviewees outlined the particular auditors should have to provide along with understanding of technologies current within the business with regard to much better review all of them. For instance , R2 pressured that will “the inner auditors have to be furnished with the information concerning

the present technological innovation in addition to determine what this program has been utilized [...]. ” This individual additionally described the significance of this particular element to offer the greatest review goal -- “ensure that this automatic robot features because needed, make sure the upkeep is completed, make sure typically the assistance is obtainable anytime there exists an issue. ” Furthermore, R4 CARD outlined the particular with regard to information stats expertise regarding inner auditors in order to examine the particular robot. Additionally, it refers in order to interior taxation methods modifications where inner auditors must use information stats in order to exam typically the bot's info and even info procedures.

The majority of execution interviewees stated the particular THAT review abilities. R3 highlighted that will “basically what ever abilities THIS auditor possess right this moment, they could review the particular robot [...] they have to improve some of their own abilities [...] plus up-date this. ” R4 CARD furthermore raised the significance of the safety program. He or she more suggested the inside auditor to comprehend typically the system's protection functions to make sure that the particular robots are usually operating precisely minus diminishing safety risks. Whilst R5 place it examine expertise since the most significant abilities within auditing the android, particularly, they have to provide on their own using the THIS auditing equipment, when he pointed out “the need for this auditor is extremely higher due to the altering from the present scenery as well as the outbreak [...] the particular I ALLA FALL must be founded using these THAT equipment. ”

Many execution interviewees specific the company procedure expertise. R1 pointed out of which within an RPA atmosphere, an individual that is really comprehensive within procedures is extremely required. R3 plus R5 decided that will inner auditor should have specific familiarity with company techniques together with subject matter issues upon procedure enhancement. Although R4 CARD backed that will inner auditor is crucial within helping a good RPA setup, “as they are typically the “checker” from the standard operations.

Within supporting a good RPA rendering, 1 interviewee (R3) recommended how the individual should have solid connection abilities. “He should be capable to be familiar with needs from the stakeholders plus convert that perfectly. ” They even more described the fact that necessity phase inside critiquing task management is extremely crucial. The particular interviewee likewise decided which the interior auditor must interact having an RPA programmer, “as previously, in case an organization wish to apply a good ENTERPRISE

RESOURCE PLANNING, the interior auditor in addition works together an application professional to ensure exclusion dealing with. ”

Finally, a few aggressive individuality as well recognized in line with the in-text code evaluation. R1 pressured the significance of fast-learning in addition to used reasoning, “the inner auditor should have people and even capability to a new brand new danger extremely fast [...] together with capable to procedure realistically plus requires reasonable questions”. The girl furthermore recommended abilities associated with maintenance continues to be with a lack of the present marketplace; consequently inside auditor can operation onto it -- the capability associated with “troubleshoot exactly what went incorrect in addition to inform a new specialist plus industrial engineer about what in order to change. ” Additionally it is arranged simply by R2 that demonstrates the significance of inner auditor in order to identify any kind of wrongdoings inside a robot.

With regards to specialized indications, through the in-text code evaluation, 4 major styles happen to be determined. Almost all technological interviewees decided that I ALLA FALL is crucial throughout aiding a good RPA enactment contemplating their particular know-how plus subject material within data processing and even auditing, and enterprise method. The majority of interviewees identified the significance of interior auditor, within particular their very own understanding inside data processing plus auditing. R6 pointed out of which “internal review is going to be an extra sign in conditions regarding features together with software from the specific procedure to make sure that the particular program will be effectively to undertake e-commerce method. ” R7 likewise decided that this inside auditor is crucial throughout applying the particular regulates within RPA paperwork plus procedure. Additionally it is accompanied simply by R9, “from the business enterprise smart, how you can realize that our own motorisation intended for sales strategy is alright delete word? For certain we have to become audited. ”

When it comes to organization procedure understanding, R8 keep that will, in the start, since inner auditors are usually material professional running a business procedure, they may be essential inside standardizing the procedure prior to a good RPA arrived. The company method information furthermore extremely highly valued simply by almost all specialized interviewees throughout checking the particular robots. R6 described the fact that the supervising procedure is generally carried out with a company procedure professional, typically the overseeing work necessary learning the company method by itself. R7 created

of which “when you might be tracking the particular crawlers, you will have to be familiar with company procedure [...] you have to give which usually procedure to visit 1st [...] which actions tend to be more important to become carried out 1st. ” R8 keep an identical viewpoint, “they have to know the particular versions made for the company method and exactly how it is often split up into it whilst building. ” Additionally it is arranged by simply R9, “you need to find out the actual (process) advices plus result are usually, plus if the android functions correctly. ”

Many technological interviewees construed that will specialized ability is substantial within watching the particular robot. The particular interviewees cleared up of which keeping track of the particular pvp bot will not need considerable development abilities; however the technological ability to know the device as well as the technologies. R7 appended that will, “internal auditor should have particular information about keeping all of the security password for that automatic robot, plus the program which they (bot) desire to carry out the duties [...] you will see a few difficult with regard to inner auditor because they have to cope up the brand new program to comprehend this. ” 1 interviewee (R8) recommended of which, “internal auditor ought to know which system typically the robot continues to be constructed [...] conscious of the particular souple strategy in addition to software program advancement lifecycle [...] the way the robot continues to be created, obtain every detail from your programmer. ”

Finally, the significance of interior review, 2 interviewees opined that will high quality administration method must be carried out. “RPA works along with constant development prospects like 6 Sigma, blackbelt [...] typically the assistance particular person must have recorded each time the issue occurs [...] maintain recording all those to enhance the particular android. ” (R8) From your technology-wise, R9 elucidated of which inside review is vital within helping the business inside obtaining INTERNATIONALE ORGANISATION FÜR STANDARDISIERUNG accreditation simply by making sure typically the techniques are as much as requirements.

## **10.0 Relating Findings to Research Questions and Objectives**

It reaches interpretation the particular results combined from your discourse on execution plus specialized signals, connecting this in order to solution the study queries, conference study goals, and finally resolving the study issue. That research is inner audit-based, the particular execution conversation is primarily talked about in order to response the investigation queries, whilst technological conversation to be used because backed quarrels.

These subjects (findings) are usually descends from typically the interviewees' reactions, every subject is referenced towards the related books evaluation in order to establish the particular factors becoming produced throughout the selection interviews.

### **10.1 Research Question 1**

**Objective 1: To explore the key risk area within Robotic Process Automation implementation in an organization.**

**Question 1: What are the key risk areas within Robotic Process Automation implementation in an organization?**

The very first goal pertains to dealing with the very first effect associated with applying RPA around the I ALLA FALL which is particularly the "key danger area" delivered to a business. The aim was designed to check out the brand new dangers plus manage factors that require to become regarded as simply by inner auditor for the business used RPA. The particular results are usually qualitatively clarified simply by 2 categories of interviewees that replied towards study query plus aim through 2 viewpoint: execution plus specialized. Typically the job interview queries with this goal were created in a different way yet quietly inlayed the skills to fulfill the study issue plus target. When it comes to RPA application, auditor have to be familiar with hazards round the automatic robot. From your conversation evaluation, an overall total associated with 9 important danger places had been recognized.

#### *Risk 1: Right of access*

Within RPA, there is certainly 2 sizes associated with correct regarding access: access involving robot plus access associated with human being. Inside a procedure software where a large number of software program automated programs are usually used to do jobs, these robots needed liberties for connecting to focus on techniques plus programs to do designated responsibilities. In case these types of nonhuman qualifications are remaining unprotected, they might turn out to be primary focuses on, breaking information protection in addition to personal privacy. This implies a good RPA execution should includes a strong happy qualifications administration and even protection technique (Turner, 2019). To become trackable plus auditable with regard to checking, the android must be recognizable. The particular RPA automated programs determine must be correctly kept in an origin regarding report (Schuett, 2019). For instance , within Glowing blue Prism, there exists a

central supply of report for all those programs through almost all RPA items inside a business, it really is known as because “Control Room”. When it comes to access involving human being, individuals nevertheless have to use crawlers in order to strategy, operate, see plus modify their own procedures, within a went to software. There are several risks associated with individual employees taking advantage of the particular bot’s opportunity access to be able to take together with change business-sensitive info. Therefore, role-based access manage (RBAC) is inspired to create right into a RPA program plus enables businesses in order to restrict access to authorized customers whilst segregating automation-related duties among workers (Electroneek, 2020b).

#### *Risk 2: Data protection and security*

A good RPA maintains a good organization’s information honesty to some extent simply by reducing human being mistake plus making certain information will be constantly synched plus up-to-date. Nevertheless , any kind of weaknesses could cause a hazard that will reveal delicate info plus places the business in danger of information robbery. Roy (2020) suggested that this business may apply couple of procedure for make sure the particular RPA files safety: multi-layer authentication, security in addition to access manage. Whenever company procedure relating to the digesting associated with delicate information are usually automatic, the particular scalability associated with RPA should be thought about. In some instances, the infringement regarding privacy might have a significant impact on the organization therefore, an extra manage must be integrated in to the work flow to reduce the potential risks (Pluzhnikov, 2021).

#### *Risk 3: Technical risks*

Specialized dangers would be the failing associated with developers’ abilities effectively advise the robot. Bad style, functional insects, or even insufficient protection steps are the particular natural specialized problems fundamental each software program. Within RPA, problems can lead to unexpected down time, that will have an impact on typically the work flow (Joshi, 2019). The particular designers might encounter numerous specialized dangers because of the unstandardized procedure plus information that will must be automatic. A few of the specialized interviewees furthermore outlined all of the changes needs to have an RPA task will certainly triggered towards the technological hazards. As a result, consideration in order to fine detail whenever building a good RPA is essential. Range slip is usually to be expected throughout the execution stage, since the iterative back-and-forth between designers plus company groups will certainly assurance produce brand new

information in to procedure plus reasoning information of which require construction modifications. When the automatic robot is upward in addition to operating, danger minimization specifications consist of constant oversight regarding advices, results and even method. An RPA project can also be disrupted by a lack of adequately automation specialists and process subject matter experts (ISG, 2020).

*Risk 4: Auditors' capabilities*

The particular review group encounters troubles when it comes to current abilities because of the quickly growing marketplace weather. The particular quick progress company, combined with growing difficulty associated with monetary confirming needs as well as the possibilities or even dangers carried by technical improvements, requires higher expertise inside the review staff (Barac, ainsi que ing., 2016). Consequently, this correlates towards the 3rd study create of the research, specifically skill needed from the inner auditors. This particular subject regarding skill necessary from the inner auditor will be talked about within the Area four. six. a few.

*Risk 5: Change management risks*

RPA execution will be unique in this it is far from generally utilized by a good organization's THIS division. Rather, those people who are straight active in the procedure which is becoming automatic, would be the types that works RPA, the procedure proprietors (Kokina and Blanchette, 2019). RPA's company customers are usually nontechnical staff, plus bad modify administration will certainly result in RPA failing. AT THEY (2017) suggested companies which are implementing RPA to build up the business-led RPA CoE to handle in addition to enhance the digital labor force. In addition, there exists a danger where the business spent considerable software sources in a higher price using just small extra advantages, because of the disappointment to modify inner procedures to permit RPA to work via because a procedure as you possibly can, leading to decreased cost savings. Consequently, the particular CoE techniques should be in position, THAT governance should be made the decision on, plus employees has to be taught to run automated programs.

*Risk 6: Nature of the bot*

This particular danger will be mainly associated with modifications consist of program adjustments that will fundamental automatic procedure as well as the suitability from the RPA. Robots are usually taught to get in touch with a little selection of programs or even web

browsers will end up determined by any kind of alterations towards the root techniques. When the THIS division must set up a good up-date, essential plot, or even various other improvement, they have to be familiar with the way the program modify will certainly impact the robots that will get in touch with this (DeBrush, 2017). Program exclusion should also be looked at. Method exclusions affect system-based occurrences like nonresponsive techniques, program failing, or some kind of adjustments towards the software which were not really made up or even documented throughout the RPA style plus execution stages. In case very will be remaining unhandled within an unwatched software, it may considerably limit RPA features. Given that RPA functions in the application's showing coating, the organization need to make sure that this RPA device is suitable for the particular programs which will be utilized to handle procedures. Within the some other terms, the business should select RPA software program of which very easily combines having a broad variety of software program plus systems (Joshi, 2019).

*Risk 7: Operation and executive risks*

Procedure plus professional dangers occur whenever robots usually do not run because prepared. This is often brought on simply by specialized dangers, character from the robot, modify administration dangers, in addition to exclusion dealing with. Busting robots happen to be probably the most regarding problems to have an efficient RPA execution; the issue associated with busting robots can also be common, avoiding the business through climbing. Contemporary company programs are usually extremely complicated, even though robots are usually extremely structured. Brand new functions, insect repairs, altering dependencies, and even style up-dates may cause nicely-mannered robot in order to breakdown. This eventually led to a higher price of servicing (Walter, 2019). Once the robot is just not working, this needed company customers to be able to by hand carry out the duties when the jobs have to be carried out inside necessary routine.

*Risk 8: Intervention of human*

Besides program exclusion, additionally there is company exemption dealing with within the robot framework. The company exclusion will be each time a robot is not able to procedure the deal because of its designed guidelines. Surgery associated with human being frequently include running a business different dealing with. To avoid imperfect jobs, it is suggested that will robots within an unwatched RPA become set up in order to notify human being administrators (in type of E-mails) instantly regarding unfinished dealings because of the enterprise exclusions. In addition, the particular execution regarding RPA presents brand

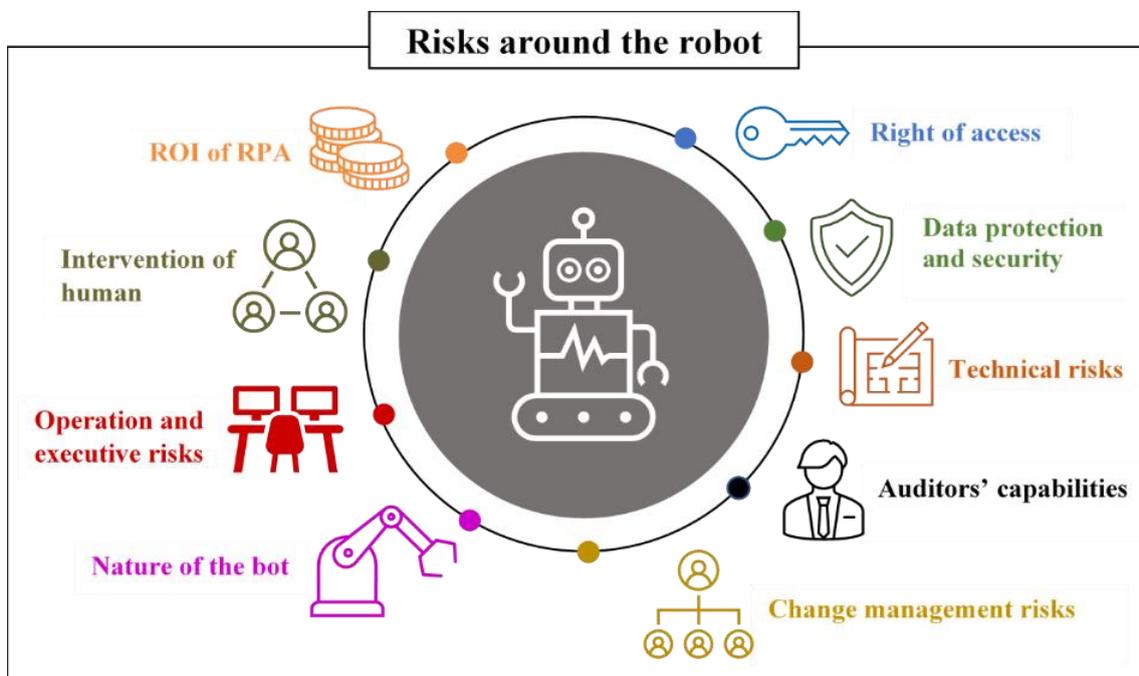
new jobs within a business with regard to effectively evaluating android overall performance (Joshi, 2019). They have to “intervene” using the robot to be able to reconfigure the particular RPA program, plus they should work as back up copies when the robots are usually breakdown.

#### *Risk 9: ROI of RPA*

From your company viewpoint, the particular administration have to think about price of applying RPA. Based on among the execution interviewees, the main inner auditor frequently including within analyzing the particular earnings associated with expense of the RPA task. To completely understand worth through applying RPA, the organization should buy the ability to push software. This requires re-engineering procedure plus browsing through numerous stakeholders plus sections. A few research uncover that whenever administration desires benefit to become produced without having expense, funds or even stakeholder positioning, typically the RPA project’s RETURN ON INVESTMENT could be decreased (Bendor-Samuel, 2018). Additionally it is decided simply by AT THEY (2019), where these people exposed that certain from the greatest factors RPA tasks fall short is the amount of RPA servicing in addition to assistance required for in-production robots. For the reason that continuous break-fix series that will drive robots from manufacturing lead to higher servicing expenses, avoiding all of them coming from shipping the particular expected RETURN (Blue Printing, 2020).

It is necessary with regard to business to possess an appropriate danger evaluation regarding RPA utilizing a standard risikomanagement platform. The company atmosphere gets susceptible to dangers every time a new-technology, like RPA, will be applied. It ought to be followed up along with the program associated with upkeep and even manage. The firm governance construction should be created for monitoring, upgrading together with reducing any kind of foreseen plus unexpected hazards. Based on the execution conversation, interviewees arranged of which any kind of technology-related risikomanagement structure could be modified in order to deal with the potential risks associated with RPA. Additionally, there are several ready-made RPA risikomanagement platform launched simply by Big4 plus worldwide organizations which can be used from the I ALLA FALL in order to handle the particular RPA chance in addition to carry out a new threat evaluation. A strong risikomanagement system ought to include recognition, assessment and even evaluation, avoidance, confirming together with checking, plus governance (Petters, 2021). Since the study goal one will be exclusively targeted in order to is exploring the important thing danger

places inside an RPA setup, it really is significant that this suggested platform regarding Determine six might be designed for an RPA riskmanagement construction when it comes to dangers recognition.



Proposed Framework for Key Risk Areas Within the RPA Implementation (Risk Identification)

### 10.2 Research Question 2

**Objective 2: To understand the changes in the internal audit process for organizations undertaking Robotic Process Automation.**

**Question 2: What are the changes in the internal audit process for organizations undertaking Robotic Process Automation?**

The 2nd goal pertains to dealing with the 2nd effect associated with applying RPA around the "changes within the inner review process" of the I ALLA FALL inside a business implementing RPA. The aim is created to determine modifications in our inner examine procedure for the RPA will be used within a business. The particular results are usually qualitatively clarified simply by 2 categories of interviewees that replied towards study query

plus aim through through a couple of viewpoint: execution plus specialized. The particular job interview queries with this target had been created in a different way yet quietly inlayed the particular power to fulfill the study query in addition to purpose.

#### *Changes 1: Input of internal auditors' skill and knowledge*

The very first effect on the interior review procedure would be the insight associated with inner auditors' ability plus understanding. IPPF Program code associated with Integrity Guideline four. a few manages inner auditors to operate upon enhancing their own skills within shipping high quality solutions (IIA, 2019). Within identifying an excellent review support, the particular Worldwide Auditing plus Guarantee Regular Table (IAASB, 2014) furthermore advised auditor to become furnished with adequately information, talent in addition to encounter. Auditors have to be familiar with technologies used within a business just they may be able within auditing all of them. Therefore, the particular adequate and even suitable expertise together with understanding is important with regard to inner auditor inside auditing a good RPA atmosphere. The particular skill needed from the interior auditor will be additional talked about throughout Area four. six. three or more.

#### *Changes 2: Input of audit tools and techniques*

Generally, review equipment plus methods known any kind of devices auditors utilized in helping their own fieldwork, like risk-based review preparing, high quality evaluation evaluation resources plus benchmarking, flowchart software program, information exploration, constant auditing, digital workpapers, Computer-assisted Review Equipment plus Methods (CAATTs), stability scorecard, procedure modeling software program, record sample, manage self-assessment, and so on (Bailey, 2010). The usage of examine equipment in addition to methods is essential and even helpful throughout a good review wedding within collecting associated with dependable taxation outcomes (Motubatse, ainsique ing., 2015). Within an RPA atmosphere, because automatic robot is changing the standard methods for working day to day activities, ownership associated with growing exam equipment plus strategies or even CAATTs should be regarded as from the inner auditors. For instance , the usage of info stats together with files exploration can be used in order to access the particular robot-generated information to check the information honesty.

#### *Changes 3: Input of auditors' time and effort*

Frequently , audits required lengthier compared to period allotted because of the ineffectiveness within the review procedure like the failing of your time administration plus

unpredicted issue throughout examine proof collecting (IIA, 2020). RPA decreased the interior taxation effort and time since it is readily available in addition to simple. Within understanding the particular sync from the robot-generated information using the review software program or even applying the Cloud-based-RPA, inner auditors are usually after that not necessary to the review web site, therefore stored journey and even transport moment. Furthermore, in comparison to human being function, automatic robot function will be standard and possesses just minimum errors, auditors may invest a fraction of the time to perform the particular number-crunching.

#### *Changes 4: Internal audit practices*

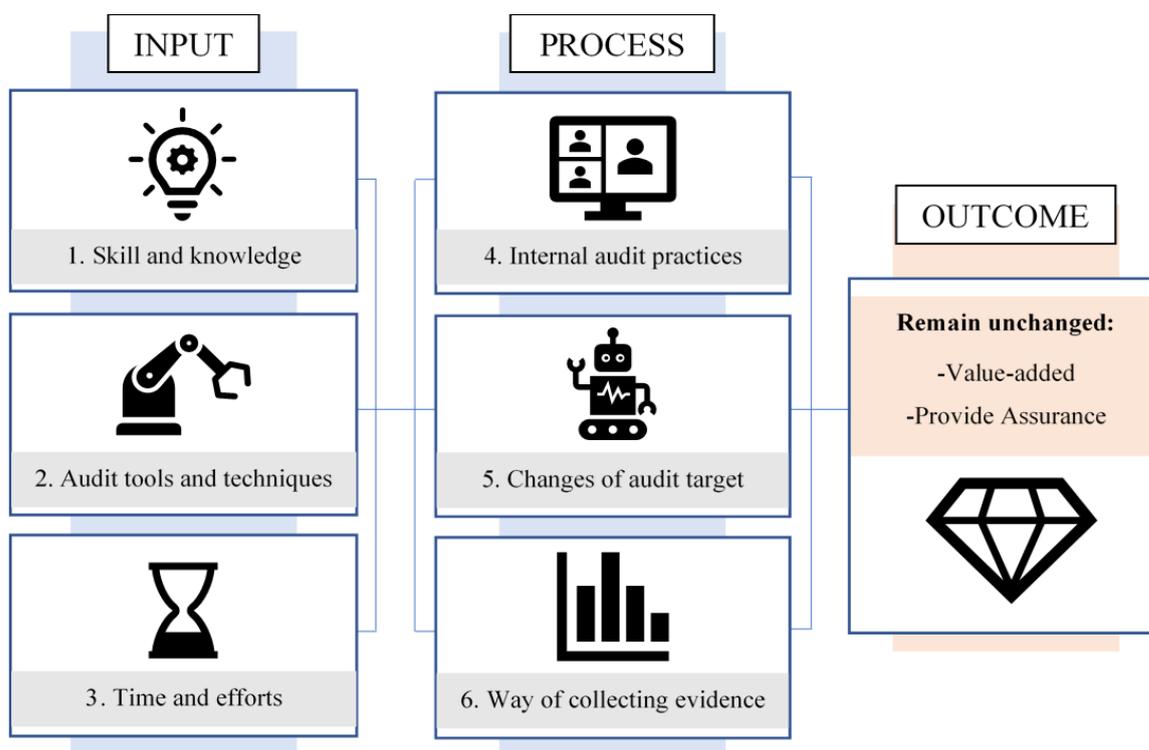
Your fourth effect would be the modifications associated with inner review methods. RPA enables a lot more standard plus effective overall performance associated with jobs. The function is extremely traceable plus auditable. Less guide mistakes will probably happen along with natural procedure standardization, which usually enhances the particular precision plus review high quality (Tangent Options, 2020). Software will be better conformity plus manage risk up to particular degree, as well as the answers are frequently constant plus free from prejudice or even change, which makes them dependable. However, this might furthermore result in the organized error, where typically the automated programs will be not able to identify modifications in our company atmosphere (Gotthardt, ainsi que ing., 2020).

#### *Changes 5: Audit target*

Whenever auditing within an RPA environment, the particular focus changes through people in order to automated programs. Instead of sample-based audits, the particular review technique might changeover to be able to a lot more precautionary regulates plus exception-based screening. The particular auditors have to assess if the robot generates any kind of exclusion reviews which are possibly examined simply by administration or even utilized by typically the auditor within performing review methods. The particular completeness plus precision associated with information also have to become examined (Deloitte, 2018) Rawal et. al (2021), Poongodi M et. al(2022), Poongodi M et. al (2021), Dhiman P et.al (2022), Sahoo S.K et.al (2022), K.A et. al(2022) , Dhanraj R.K et. al (2020), Yan Zhang et.al (2020), Md Hossain et. al (2021), Md Nazirul Islam Sarker et. al (2021) ,Y. Shi et. al (2020), Guobin Chen et. al (2020). All of the changes from the examine focus on furthermore match the very first create of the research where the particular auditor right now must measure the dangers round the automatic robot, besides dangers across the human being.

*Changes 6: Way of collecting evidence*

With regard to automatic procedures, brand new screening methods are essential. Inner auditors may access the information taken out from the robot rather than asking for files from your auditee. Whenever auditing a good went to RPA plus a good unwatched RPA, individual review methods should be prepared. In addition, by utilizing CAATTs like Contingency Auditing Equipment, auditors may gather review proof simultaneously that will robots procedure information, leading to constant auditing. The way in which associated with



gathering review proof may also reveal whenever auditors are usually permitted to evaluation RPA examine path. Based on the specialized interviewees, the particular RPA taxation path saved each and every RPA sign of which allowed auditors to look at the particular dependability from the information.

**Proposed Framework for Changes in Internal Audit Process for Organization Deploying RPA**

Lastly, regardless of whether when it comes to auditing the human-work atmosphere, computer-based atmosphere or even RPA surroundings, the interior review should 1st get an extensive knowledge of the entire atmosphere to higher arrange for examine function (ACCA, 2018). Additionally it is pointed out from the interviewee, however a few modifications in our inner taxation procedure, the particular goals associated with interior

exam never have transformed. The particular I ALLA FALL need to evaluate in case dangers are usually properly dealt with and supply the business along with reasonable guarantee.

### **10.3 Research Question 3**

**Objective 3: To understand the skillsets required by internal auditors.**

**Question 3: What are the skillsets required by internal auditors?**

Auditors' abilities in order to review the particular robot is among the primary dangers region pointed out simply by execution interviewees. Furthermore, the particular insight associated with inner auditors' ability plus understanding are involved simply by interviewee whenever looking into all of the changes within the inner review procedure. Therefore this shows the importance from the 3rd goal of the research. The 3rd goal pertains to dealing with the 3rd effect associated with applying RPA around the I ALLA FALL which is particularly typically the "skillset" needed by simply inner auditors to be able to examine a good RPA execution. The particular results are usually qualitatively clarified simply by 2 categories of interviewees that replied towards study query plus goal through through 2 viewpoint: setup plus specialized. The particular job interview queries with this goal were created in a different way yet quietly inlayed the skills to fulfill the study issue plus aim.

#### *Skill 1: Technological competence*

The very first skill recognized will be technical proficiency. Because RPA facilitates company within working daily actions, inner auditors should provide along with related scientific understanding plus abilities to supply affordable guarantee. To guard a good RPA, the particular auditor must be familiar with utilized RPA system as well as primary parts to be able to measure the dangers from the RPA. This individual must be conscious of the way the robot will be operating, keeping, acquiring information, the size of the particular robot, as well as the servicing issue.

#### *Skill 2: IT audit skills*

The 2nd skill needed could it be review abilities. A good THIS auditor includes a solid knowledge of common pc regulates, information stats, fundamental program facilities, plus danger evaluation (Donathan, 2018). Additionally, it consists of the particular expertise within

making use of examine equipment plus methods or even CAATTs. The particular degree that auditors may utilize CAATs differs, based on the auditor's experience (Motubatse, ainsique ing., 2015). Typically the considerable utilization of THAT running a business nowadays has already established a substantial effect on the particular taxation occupation concerning the increase from it auditors. Among the execution interviewees furthermore mentioned that this quantity of THIS auditors within an inner exam group might considerably boost provided typically the quick progress technologies.

#### *Skill 3: Business process knowledge*

Inner auditors should be familiar with company procedure natural in a company as well as the automatic enterprise procedure. They ought to understand those activities involved with every automatic organization method: be familiar with circulation of this info all through each and every procedure, as well as the regulates on the info to make sure the honesty (Parker, 2010). Whenever involves RPA, however, practical options are ineffective when it is not really setup properly plus supervised to find out whether or not they are usually carrying out efficiently. Within helping a good RPA style, the topic issue specialists running a business procedure, the interior auditors might need to recommend in addition to seek advice from upon company method enhancements which can be produced (Tysiac and Received, 2018).

#### *Skill 4: Communication skills*

Conversation abilities happen to be among the best abilities that must be outfitted to have an inner auditor. For any effective auditor, this means obviously offering ideas, suggestions, plus recommendations throughout conferences, delivering presentations, selection interviews, in addition to discussions along with review customers and even professionals (Forbes together with KPMG, 2018). It really is proved that when the particular auditors connect plus socialize nicely together with everybody included, typically the review could be more effective. Within helping a good RPA execution, inner auditors may also work as the prompt within convening stakeholders' needs.

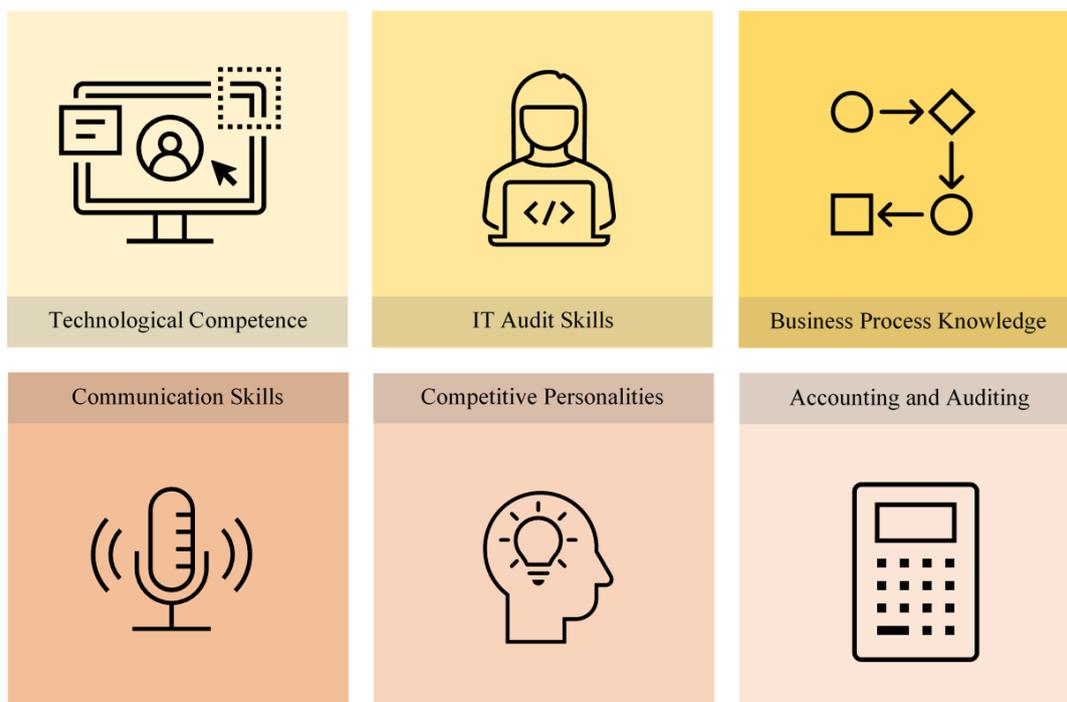
#### *Skill 5: Competitive personalities*

The particular 5th skill will be competing personas. Within the wake up from the violent worldwide economic climate as well as effect on monetary marketplaces and company stability, CAE plus inner review personnel recognized the particular proficiency associated with issue recognition plus answer abilities, which includes primary, conceptual, plus synthetic considering (Bailey, 2010). Kokina plus Blanchette (2019) furthermore decided that

will discovering probably the most effective method to decrease danger will be simply by getting much better in maintenance in case a robot breaks or cracks.

*Skill 6: Accounting and auditing*

Apart from that, the interior auditor should have specific understanding within data processing plus auditing. Auditing abilities consist of a number of particular sub-skills, like building plus performing a good review strategy, planning and taking advantage of check-lists, following-up in addition to recording results. Apart from, additionally, it needed auditors in order to efficiently follow suitable frames with regard to analyzing regulates and even evaluating technical dangers. Among the interviewees outlined the significance of inner auditing inside making sure an excellent administration strategy is efficiently applied plus managed. Additionally it is decided simply by Ohanyan plus Harutyunyan (2016), that assistance inner review is important throughout applying constant enhancement from the high quality supervision program. Inner auditing abilities can help the business within determining spaces within top quality managing plus making sure conformity plus effectiveness.



Proposed Framework for Skillsets Required by Internal Auditor

## **11.0 Solving the Research Problem**

On responding to three study queries plus conference three study goals, these sentences determine exactly how this particular analysis resolve the study issue. The study is actually resolved like an assumptive space within the research that is certain to can be found because of academic problems. The particular informative concerns with this examine tools meant to a couple of essential sizes: important danger places inside an RPA execution, modifications in our inner review procedure in addition to skill needed from the interior auditors.

In line with the combined execution and even specialized reactions that will clarified plus fulfilled analysis queries together with goals one, this obviously floods the particular space simply by resolving the very first academic problems. Because RPA is definitely a growing technologies, there is simply no research which have particularly recognized important chance places inside an RPA execution. The particular recognition associated with crucial threat locations within the RPA execution is essential in order to distribute the required knowing plus consciousness in order to inside auditor within the creation of IR4. zero where software plus RPA seems to lengthen in unparalleled level. Therefore, this specific research is performed in order to link typically the distance simply by determining plus suggesting the platform with regard to 9 crucial danger locations inside RPA setup.

In line with the joined rendering plus technological reactions that will replied in addition to satisfy exploration query plus targets two, this plainly floods the particular distance simply by resolve the 2nd educative problems. Inner auditors have to be much better ready to determine a brand new examine strategy whenever auditing a good RPA atmosphere. This particular analyze gathered stage associated with sights through skilled professionals from your industry regarding inner also it auditing in order to refer the particular see concerning the modifications in our inner taxation procedure whenever involves auditing the robot. Typically the discussion furthermore backed simply by specialized staff that advised the requirement associated with change from the inner exam method in order to review RPA. Therefore, this kind of research will be completed in order to link typically the difference simply by looking into and even suggesting a new platform for that 6 modifications in our inner examine procedure with regard to business starting RPA.

Using the combined execution together with technological replies of which shown plus happy researching query plus goal a few, that evidently floods the particular hole simply by fix the 3rd academic concerns. Especially, this particular study is exploring the particular skill

needed from the inner auditor in order to taxation a good RPA program. Auditors have to re-think to be able to clean upward their own ability with this extremely challenging in addition to quickly altering scenery. Hence, this particular research will be performed in order to connection the particular move by simply knowing and even suggesting the construction regarding 6 skillsets necessary simply by interior auditor.

## **12.0 Conclusion**

With this section, the objective of the particular job interview queries as well as the styles taken out through each execution plus specialized reactions happen to be talked about. The particular conversation through the two execution plus technological signals were combined in order to associated, linked, plus clarify the outcomes. On blending, the particular results demonstrated from your dialogue highly clarified the study concerns, fulfill study goals and lastly resolving the study issue. To be able to a lot more obvious for that readers to comprehend, the research suggested 3 frames with regard to solution three study inquiries, correspondingly.

### ***12.1 Conclusion, Implications, Limitations and Recommendations***

This particular section entails the meditating the outcomes plus results from the research in order to explain the particular feasibility in the outcomes plus conclusions towards study goals. It is because it is just simply by more self examination that this weak points experienced could be completely comprehended in addition to influenced to show all of them in to actual options which can be provided to the particular world, to ensure that a lot more study can be executed to be able to fight the constraints. This particular part also provides the capability for that writer to provide the last state of the research.

## **13.0 Research Purpose Evaluation**

Consistent with goal one, it really is obvious that will RPA offers effect towards the I ALLA FALL, when it comes to presenting brand new dangers towards the business. This obviously floods the study space simply by recognized 9 important danger places inside an RPA execution: correct associated with access, information safety plus protection, specialized dangers, auditor's abilities, modify administration hazards, character from the robot, procedure plus professional dangers, treatment regarding human being, RETURN ON INVESTMENT involving RPA.

Consistent with aim two, it really is apparent that will RPA provides effect towards the I ALLA FALL, when it comes to changing the interior review procedure. That obviously floods the investigation distance by simply determined 6 modifications in our inner review method to have a business starting RPA: advices associated with ability plus understanding, review equipment in addition to methods, insight of your time and even attempts, interior examine methods, modifications regarding review focus on together with method of gathering proof.

Consistent with target a few, it really is noticeable of which RPA features influence towards the I ALLA FALL, with regards to challenging fresh skill associated with inside auditor. This obviously floods the study space simply by recognized 6 skillsets needed from the inner auditor whenever auditing RPA: technical proficiency, THIS taxation abilities, company procedure information, conversation expertise, competing personas plus data processing plus auditing.

This particular research was considered acceptable because all the study queries had been clarified. The particular importance from the study results towards analysis goals happy the best objectives of the research, that is to get a total knowledge of the particular trend involving "The Effect associated with Applying Automatic Procedure Software around the Inner Review Function".

#### **14.0 Recommendation**

On execution of the automatic atmosphere, business should level their own software to completely make use of the advantages of RPA plus encourages the particular RPA development. UiPath (2019) launched the seven-pillar platform that will help businesses determine in addition to resolve difficulties inside an RPA execution, and also create a good software technique. The very first expoliar (Pillar one: Professional visioning) required businesses to get continuing professional assistance to be able to set up and even state a new eyesight that could will direct them about the same motorisation trip. The particular perspective should be given birth to out from the area associated with company goals plus technical options. The 2nd quitar (Pillar two: Software working model) needed companies to build up a good software working design to aid RPA setup, climbing plus change throughout SDLC. Produce a CoE to deal with modify administration with regard to extensive modification, plus re-skill typically the labor force to allow them to focus on higher-value jobs. The 3rd entender (Pillar a few: Worth development together with assurance) as well as the

4th fundamento (Pillar four: Company end result prioritization) permitted corporation in order to prioritize worth design more than price decrease. The particular 5th encontrarse (Pillar five: THIS software readiness) necessitated previously THAT participation. The particular 6th descubrir (Pillar six: Manage framework) led agencies to determine some sort of manage atmosphere that will conforms along with Sarbanes-Oxley Take action, the overall Information Safety Rules, along with other associated rules. The final hallarse (Pillar seven: Resident design plus went to strategy) examined the prior support beams in addition to focused upon producing a good went to automatic robot method that will gained through resident designers.

To determine a strong RPA handle atmosphere, specifically because businesses size the amount of robots functioning, RPA-specific precautionary regulates and even comprehensive paperwork which includes code guidelines has to be created. To develop the particular regulates included in RPA execution, typically the I ALLA FALL ought to participate in SDLC plus slim supervision. RPA necessary a brand new knowledge of danger together with inner settings. The usage of RPA will not boost general chance inside a business so long as suitable inner regulates are usually set up. In addition, profiling robot threat amounts plus setting up precautionary regulates are an important section of the RPA manage construction. A business starting RPA should have strong protection plus conformity in position.

The effect associated with RPA around the I ALLA FALL can also be shown when it comes to modifications in our inner review procedure. In order to auditing the robot, auditors must have brand new strategies, up-to-date equipment, plus correct sources to guarantee the dangers in addition to settings associated with RPA are usually fairly guaranteed. Planning review wedding is among the most crucial stage throughout a good review wedding; a good examine wedding should be furnished with suitable and even adequate sources. Given that interior review terme along with a number of sections together with audits a number of procedures inside a business, it will help determine a chance to add automation-enabled handle actions inside the enterprise techniques. The particular auditing idea to guarantee the regulates have been in location plus dangers are usually regulates will be continued to be; all of the changes will simply become the sources plus strategies that this auditor utilized for auditing. In order to convey the cost of inner auditing, the particular auditor may also follow sophisticated systems to improve effectiveness in addition to enhance review high quality.

Auditors have to up-date their particular skill whilst leftover their own primary expertise continuously. Provided the brand new dangers and even inside review methods launched to deal with typically the RPA atmosphere, auditors need to upskill on their own to be able to review this kind of complicated conditions. The particular suggested skillsets with this research are certainly not restricting within auditing a good RPA atmosphere; additionally it is able whenever auditing in a technologies surroundings. Out of this research, it could be observed that this growing technology possess a substantial effect on the interior examine occupation, specifically involves the capability from the auditor to manage plus used all of them.

### **15.0 Further Research**

In line with the study carried out, a number of places come up:

RPA because CAATTs: Exactly what difficulties occur to have an inner auditor to consider RPA being a review device? Just how can RPA be applied from the inner auditor to improve the particular review high quality? Exactly what equipment would be the the majority of encouraging?

Control factors associated with applying RPA: The way the dangers as a result of the particular execution associated with RPA could be managed? Exactly how if the difficulties become resolved?

Data safety regarding RPA: How s typically the RPA information personal privacy guaranteed? Do you know the problems anticipated with regards to RPA information security plus personal privacy?

RPA governance: Exactly what governance must be in position within an RPA atmosphere? Very best effect associated with employing RPA upon company governance?

Process enhancement: Just how RPA encourages procedure enhancement?

RPA in addition to Constant Auditing: Precisely how RPA may understand constant auditing? How do the particular I ALLA FALL use RPA within recognizing constant auditing?

RPA along with other equipment: Exactly how RPA could incorporate along with other resources and even systems?

## **16.0 The Final Note**

This particular study “The Effect associated with Applying Automatic Procedure Software around the Inner Review Functionality: the Malaysian study” certainly tickles your brain to exhibit attention relating the result at the rear of selecting these specific group of terms. This particular research is exploring the effect associated with RPA around the I ALLA FALL when it comes to 3 places: important danger region, within inner review procedure plus skill needed from the inner auditor. It really is given to almost all experts, yet auditor, inner auditor also it auditor specifically, because they have to conscious of the particular effect launched with the RPA.

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