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MANAGEMENT PRINCIPLES INTO AUDITING



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**THE PROJECT AUDIT: INTEGRATING PROJECT MANAGEMENT
PRINCIPLES INTO AUDITING**

**TRABAJO DE TITULACIÓN QUE SE PRESENTA COMO REQUISITO
PREVIO A OPTAR EL GRADO DE CONTADOR PÚBLICO
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THE PROJECT AUDIT: INTEGRATING PROJECT MANAGEMENT
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The Project Audit: Integrating project management principles into auditing

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Abstract

Project Audit is said to be an important step at the end of a project life cycle or even at the end of every stage during the project life cycle; but what does a project audit involve and in what aspects it differs, if it actually does, from traditional audit? It is the objective of this paper to expose and define what Project Audit is, and what has been produced about the topic. This objective is obtained by answering the proposed research question on whether Project Audit is a new type of auditing which uses project management principles, or it is simply a traditional and integrative audit process applied to projects. An extensive literature review has been performed which revealed the opposite perspectives of different authors on the subject since 1960, where auditing and project management fields started to evolve. The research suggests that project audit is not fully recognized as a new type of audit but rather as a traditional one applied to projects. Further research is recommended to be done on the development of project audit in Ecuador and Latin America, where project management is not as established as in other regions of the world.

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Keywords: auditing, project auditing, performance audit, project management, project auditor, project failure

Resumen

La Auditoría de Proyectos es considerada como un paso importante al final de cada etapa del ciclo de vida de un proyecto, incluyendo la etapa final del mismo; pero ¿qué envuelve la auditoría de proyectos y en qué aspectos difiere, en caso de que lo haga, de la auditoría tradicional? Es el objetivo de este artículo el exponer y definir qué es la Auditoría de Proyectos y qué se ha escrito a cerca del tema. Este objetivo es obtenido al responder si la Auditoría de Proyectos es un nuevo tipo de auditoría que usa los principios de dirección de proyectos, o simplemente es una auditoría tradicional e integral aplicada a proyectos. Una exhaustiva revisión literaria se ha realizado, la cual revela las diferentes perspectivas de los autores en el tema desde 1960; año en que la auditoría y la dirección de proyectos empezaron a evolucionar. Esta investigación muestra que la auditoría de proyectos no es reconocida como un tipo diferente de auditoría; sino más bien, una auditoría tradicional aplicada a proyectos. Una investigación más profunda sobre el tema es recomendada en Ecuador y Latinoamérica, dónde la dirección de proyectos no está muy establecida como en otras regiones del mundo.

Palabras claves: auditoría, auditoría de proyectos, auditoría de gestión, dirección de proyectos, auditor de proyectos, fracaso de proyectos

Introduction

Overview

Project Management, as it is known today, is definitely not a recent managerial approach; its promulgation started from 1960's (Sisk, 2003) and its

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importance was evidenced with the creation of two of the most relevant organisations of project management that currently exists: the well-known Project Management Institute (PMI) which was founded in 1969 (Project Management Institute, n.d.), and the Association For Project Management (APM) founded later in 1972 (Association for project management, n.d.). Since then, project management has gained more presence around the world in businesses and even in governmental institutions. In the Third Global Survey on the current state of Project Management made in 2012, PricewaterhouseCoopers (PwC) revealed that organisations switching from business-as-usual (BAU) to project-based structures are on the rise. The reason for this increase could be due to the positive correlation between the use of project management methodologies and project success; as exposed by KPMG in its Project Management Survey Report (KPMG, 2013). These findings show a tendency on organisations evolving to project-based structures; evolution that started to be adopted in auditing too, in the so called project audit which is the scope of this paper.

This paper seeks to expose and define what Project Audit is, and what has been produced about the topic. This objective is obtained by answering the proposed research question on whether Project Audit is a new type of auditing which uses project management principles or it is simply a traditional and integral audit of projects which combines compliance and operational assessments. In order to get to this main objective this paper has the following specific objectives:

- To review the existing and available literature produced on the topic.
- To get to a practical definition of what project audit is and its elements.

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- To analyse the information gotten during the research and compare it to traditional audit.

The importance of this study relies on the exploration and exposure of the topic that raises attention to this side of auditing, which hopefully in the next years, will become more popular as companies keep switching from BAU structures to project-based ones. The intended beneficiaries of this paper would be professionals working in the field, audit firms, and students of Public Accounting who might be interested in venturing into project management; a niche that is not fully exploited in Ecuador; where until September 2014 only 490 Project Management Professional (PMP) certifications have been issued, representing the 0.08% of all the certifications issued globally by PMI (PMI Capítulo Ecuador, 2014). Yet, a niche that in Latin America grew 25% in 2013 in comparison with the previous year and in terms of certifications issued by PMI (Project Management Institute, 2014); and which only in Brazil by 2020 will bring around 1'364,932 new project management jobs (Project Management Institute, 2013).

Scope and Limitations

This paper covers the topic of Project Audit in general terms, with no specific focus on any particular region, country, or industry. Nevertheless, some statistics from the United States and the United Kingdom are used to support this study regarding project management. Also, this paper's intention is not to show how to perform a project audit or an audit itself, but to analyze the main elements of it. This research should serve as an introduction to further papers concerning the same subject in discussion here but with a more narrow focus.

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Due to time constraints no empirical research has been performed, and no specific business case has been studied; this does not mean that they are not recommended to be held. Besides time, accessibility from this author to actual information from companies in Ecuador has been a constraint too.

Methodology

This paper does not include any empirical research done by the author. It is a systematic literature review based on publicly available literature, researches, and facts related to the topic in discussion. This review involved looking information on auditing, project management, and project audit; this last one did not show the expected amount of results. Even though there is a strong correlation between programme management and project management, programme audit has been excluded from the coverage of this paper. As the new concept of project management started to be exploited in the 60's, academic papers before this date has not been considered relevant for this investigation. Three search engines were used, one from Google Scholar, one from The University of Manchester, and the last one from Universidad Espíritu Santo. These last two, allowed access to EBSCOhost which made available many academic articles from popular databases like Elsevier, Springer, Source Direct and Business Source Complete from which most of the sources for this paper come from; databases that contained a high level of academic papers related to auditing and specially on project management. To supplement the previously mentioned articles, web pages from PMI and APM were used, and also other web pages related to project management and auditing.

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All the collected information was gathered thematically along this paper to better establish interconnections and dependencies between auditing and project management; and for a better understanding of the relation between these two. This paper first, attempts to define what Project Audit is and to describe its main features. Later, a comparison between project audits, financial audits and technical reviews is made. The relevance of project audit, what a project auditor is and the project auditor's role is also covered later in the following section. A perspective to the current and future challenges of the topic in discussion is exposed and finally conclusions and recommendations are developed.

Project Audit

As a first step to understand what Project Audit is, it is logical to start with the basics, the definition. Even though there is no extensive literature about the topic, there are many authors who have written about it. It seems that there is no general accepted definition of what Project Audit is, but based on the findings of this research, a practical one is highlighted in this paper.

The National Institute for Further Education from Czech Republic (n.d.), in its Project Audit Methodology paper, defines project audit as: “the process of verification of the extent to which project realisation complied with the rules and principles of project management for the concrete project.” In other words, what could be inferred is that Project Audit will assess if the project was delivered on time, on budget and on scope (Ruskin & Estes, 1984); by, as Ross (1976a) states, measuring “the actual achievement versus the planned goals”. Of course, projects have different stages during their life cycle like: initiation, planning, executing,

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monitoring and controlling, and closing (Project Management Institute, n.d.); stages of the project life cycle in which, according to Newmark (1997) and Glenwright & Mattos (2008), project audits should be applied in. Certainly, the scope and purpose of the project audit will have some variations depending on which stage the project is (Lijima, 2008).

As stated before, as there is no specific and accepted definition about project audit, some authors have called it in different ways like *project management audit* (Bonner, 2011) or *project performance audit*. For purposes of this paper, the author makes no distinction between project audit and this two, due to the similarities all of them have. They are considered just a different way to refer to the same concept.

More than a traditional audit

The traditional sense of audit is not suitable for projects, as stated by Lazarezyk (2009); it is seemed to be static and systematic (Marinaccio & Trojanowski, 2012), which contradicts the principles of temporality and uniqueness that characterizes projects (Project Management Institute, n.d.). Project Audit then, is presented as a non-traditional audit which can be tailored to give value to the customer (Marinaccio & Trojanowski, 2012). It is a more comprehensive auditing “technique” which covers technical, financial, and managerial areas; in which the audit scope will vary depending on the sector it is being applied. Governmental institutions for example, would use this audit as urgent solution to troubled projects or projects under suspicion; banks on the other

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hand would carry an audit more focused on the financial aspect but paying attention also to the other two areas (Duffy & Thomas, 1989; Hossain, 2010).

Project Audit is definitely more than a financial audit and definitely not just a compliance checklist; it is usually not performed as a routine like financial ones, and it is a customized audit with no determined or specific standards which makes it suitable for projects (Ross, 1976a; Ames Enriquez, 2007). It is important though, to recognize that financial audits are more popular (Lazarezyk, 2009) and practiced more often, but mainly because of the regulations different countries have and to which entities and business have to comply with. Nevertheless, financial audit methods are helpful in the sense that from them, the auditor can adapt new ones to perform a project audit (Ross, 1976b). The same author recalls the importance of both, financial and operational methodologies, due only one of them will not be sufficient for the stakeholders interested in the audit. As the German Institute for Internal Auditing (2008) states: “projects are, in general terms, auditable with regard to their effectiveness and efficiency but also with regard to their compliance with statutory, regulatory and corporate guidelines”; statement that emphasize the important of an integration of auditing techniques.

Project Audit vs. Project Reviews

It has already been defined what project audit is, but it is not surprise to see some confusion between project audit and project review. Ross (1976b) distinguishes the difference between them; he refers to project review as an “inquiry” about status, quality and any other issue of the current state of the project at a particular time; on the other hand, project audit is seen as a more

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“detailed examination” usually requested when there is some level of suspicion about a matter concerning the project. The APM Body of Knowledge (APM BOK) also defines project review as an activity that “takes place throughout the project life cycle to check the likely or actual achievement of the objectives specified in the project management plan”; which confirms Ross (1976b) differentiation of the two concepts. It is true that project reviews do validate the work done in the project towards the planned one (Busby, 1999; Carrillo, Harding, & Choudhary, 2011); but project audit will always be required to complement and more importantly, to keep transparency in the operations (Glenwright Jr & Mattos, 2008). Transparency will bring confidence to the stakeholders and on the final outcome of the project. Nevertheless, both: project audits and reviews, are important for projects in the avoidance of the common pitfalls to happen; both suggest improvements in all stages of the project life cycle including: scope, time, quality, people, communication, risk, requirements, processes, customer satisfaction, and many more (Yetman, 2006).

Project Failure and Lessons Learned

But why if project management principles pay so much attention on planning, monitoring, and controlling; there is the need to perform project audits during the project lifecycle? And why if during the project lifecycle there are gate reviews, which help to make a decision on whether to continue with the project or not; project audits have not lost popularity in the project management community? The answer to these questions could be related to project failure.

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Projects fail, and despite the different reasons why failure occurs, this fact has made project stakeholders to demand higher controls and request frequent audits. Failed projects like the Scottish Parliament Building (Schottish Parliamentary Corporate Building, 2004), the International Space Station from the National Aeronautics and Space Administration (National Aeronautics and Space Administration, 2000), the World's most famous project failure, the Sydney Opera House (Sydney Opera House, n.d.); and many others have raised the necessity of accountability for the resources, not only economic, spent on projects (Duffy & Thomas, 1989); necessity that shows the importance of project audit in today's private and public environments as one of the solutions for "troubled projects" (Williams, 2014). All these cases are examples of budget over-run and missed deadlines (National Audit Office, 2011), which highlights the project audit should start with the contract (Lazarezyk, 2009), where all the parameters and requirements are stipulated. This statement is confirmed by (Nalewaik, 2006) which says that contracts should have a clause for the right to audit at any given time during the project life cycle. Unfortunately, project audits do not usually involve auditing the contract; despite the big benefits it would bring to the project and the organisation (Chashell, Aldhizer III, & Eichmann, 1999).

Until now it has made evident that Project Audit could be a factor that boosts project success (Marinaccio & Trojanowski, 2012; Chittoor, 2012), but the reasons why this is considered so, have not been demonstrated yet. According to Nalewaik (2006) and Ruskin & Estes (1984), project audit is an "essential project controls tool"; which can be applied during the project lifecycle to prevent the project from failure by promoting corrective actions in time. Even though the

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adoption of new types of audit in non-financial matters has become more popular lately; unfortunately these new approaches in auditing are being used more as a fire-fighting than as prevention or controlling tool (Ross, 1976a). “The sooner the internal auditor engages with a project, the better” (Bi, 2009); and the success on performing this type of audit on a regular basis, almost to the same frequency financial audits are performed, is a key factor on project success (Ross, 1976a). Ross (1976b) also adds that, the same as a gate review, this type of audit can let the stakeholders interested in the audit to decide whether to continue with the project or not; due it acts as a “competent status report – written and oral – stated in terms management can understand”.

Lessons learned is another important benefit of project audit and probably the most documented one; benefit which is not commonly gotten from financial audits (Ross, 1976a). Unfortunately, according to Duffy & Thomas (1989) and Neale (1991); post-project audits, in which lessons learned are mostly obtained, are not so commonly practiced. Probably, because of the misbelieve that once the customer accepts the project and money is collected from it, then the project is over. The truth is that post-project audits can improve decision-making and planning, they can serve as a justification for project early closure, and other improvements in the management of projects (Neale, 1991).

The importance of audit focusing in project management is due it links all the areas concerning a project (Bi, 2009); but it is important to discern that project audit is not intended to be applied only to project-based organizations. The operations in this type of organisations are based mainly in projects, but

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companies with BAU structures also have projects that can be audited; not as the main part of their businesses but as a sporadically event. For example:

implementation project for change technology, development projects for new products and services, headquarters relocations, or other small projects from the company related to an improvement or change into the organisation (Lijima, 2008; Marinaccio & Trojanowski, 2012). In both scenarios, project-based and BAUs, the benefits associated with project audit are applicable. It has been discussed here about project audit and its project management focus, but it is also important that for the success of the audit and the project, the project audit is treated as a project itself too (Sinason, 2002).

The project auditor

As there are health care standard auditors, government contract auditors, and quality auditors (Lazarezyk, 2009), there is also a niche for project auditors; which, to cope with the demands of this fast-pace world, need to step up from regular auditors and acquire more skills and aptitudes. This statement is also supported by Lindow & Race (2002) and Huibers (2013), who add that the project auditor should integrate more with the objectives of the project or business they are working in; engaging into a more proactive role.

Even though Marinaccio & Trojanowski (2012) and Stanleigh (2012) state that there is no need for auditors to possess technical knowledge in projects, they do believe that it is more important to “understand the processes used to manage projects successfully”. According to them, there is always the option to request extra help from a specialized project auditor. Newmark (1997) adds that not only

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those auditors who understand the project management processes, but those who “tailor their audit work” to the project framework, are the ones that play an important role in the organisation’s improvement process.

Opposite to Marianaccio & Trojanowski (2012), Lazarezyk (2009) believes that “an accountant alone is not qualified to address the issues of scope, methods, quality” that needs to be addressed in project audits. According to him, the problem relies that most audits are done by accountants who follow accepted auditing standards; standards that are mostly directed to financial objectives which makes issues like project methods or project quality aside. The auditor must have technical background and experience to be able to perform project audits (Lloyd, 1982; Nalewaik, 2006). Auditors can get specialized training and help the audit succeed in specialized environments (Chashell, Aldhizer III, & Eichmann, 1999); but those who pair their audit skills with project management tend to provide more value in their work (Bi, 2009; Booth, 2014).

The internal auditor can provide relevant value to the project by the early engagement and its role could vary from a consultancy-like to the performance of a formal audit (Bi, 2009). According to Duffy & Thomas (1989), the project auditor should also play a role of consultant and sometimes even the role as project manager; not functionally speaking but in his mind-set when giving recommendations to the client (Nalewaik, 2006). By doing this, the auditor will not be just a simple auditor performing a checklist (Lindow & Race, 2002). The interest thing for project auditors is that, as they are dealing with projects, they

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can and probably must adapt and create new ways, processes and procedures according to the project environment, focus, nature or conditions (Ross, 1976a).

The project audit team

Even though not all authors support Lazarezyk (2009) statement, that “accounting expertise alone will be insufficient in addressing scope risks”; they do agree on the importance of staffing properly the audit team, which should be formed by people with business profiles as well as technical ones (Sinason, 2002; Lazarezyk, 2009; Bi, 2009; Ernest & Young, 2012; Marinaccio & Trojanowski, 2012). In some companies, project managers are even part of the auditing team; which will avoid embarrassment for the project manager due it will be part of the solution (Chashell, Aldhizer III, & Eichmann, 1999); even though it is not recommended that people involved in the project participate in the audit team (Yetman, 2006). The main point is that for those audits where no technical auditors have participated in, there is the risk of lack of credibility due the report of the auditor can miss some technical aspects or even worse, can contain wrong technical facts (Ross, 1976a).

Supporting the idea of a mixed project team; Sinason (2002) and Braun (2014) state that there is a paradigm in relation to the belief that someone who is really good at the technical part can be good at a managerial position. There is even the case where some auditors are promoted to audit project manager, which opens a new branch in the job field. The challenge here is that this promotion will imply that the auditor leaves partly its technical background and embraces the

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managerial focus too by doing more than reporting problems but to start solving them.

Finally, in terms of team composition, Ross (1976a) states that in financial audits the team mostly have the same capabilities and background; on the other hand, in technical ones, there are, a wide variety of specialists and not in audit specifically. In this last one “the audit process and conclusion become even more of a team effort than in the normal auditing situation” (Ross, 1976a).

Challenges of Project Audit

Projects, especially in the construction sector, are becoming more complex with shorter deadlines and limited resources; this has presented a challenge for auditing to be a crucial tool to ensure effective and efficient management (Glenwright Jr & Mattos, 2008). Probably one of the challenges faced by auditing is that private companies prefer consultancy firms and not auditors, as what they need at the beginning of a project is advice (Duffy & Thomas, 1989). This is why project auditors, as stated before, need to evolve and be able to start thinking as project managers too and not solely as auditors. According to Ross (1976a) there’s a thin line between audit and consultancy; but it is allowed for the auditor to provide “expert opinion” even though this technical opinion is more asked to consultants. Selim *et al.* (2009), on their study of consulting practice in auditing, revealed that the involvement of audit in consulting is perceived as a generator of positive benefits to the auditors themselves; to the image of the audit department in the organization; and to the performance of the audit itself. The expansion of

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the profession scope should be a tendency to cope with the expansion in stakeholders expectations on audits (Jackson, 2013; Ernest & Young, 2014).

Another challenge of project audit and actually of audit in general, is to gain respect and not be seen as intruders who delay normal operations (Nalewaik, 2006). There is usual lack of cooperation from people being audited (Iatco, Ignat, Ungureanu, & Athes, 2014), and even in the case where the audit is stipulated in the contract, this does not guarantee that the audit is well welcome (Chashell, Aldhizer III, & Eichmann, 1999). In a project environment, auditing needs to get support from the Project Management Office (PMO), which is a challenge when previous audits have not made any significant improvement or result in the project or projects; acceptance of the work of the auditors and the implementation of its recommendations is a goal of the audit team (Marinaccio & Trojanowski, 2012). Nevertheless, the project team should also facilitate the work of the audit team through effective project management, which is “fundamental to delivering value” to the audit (Bayhi, 2014).

This notes, that auditing is more than performing an assessment, relationship with team members and stakeholders is important for the success of it as Marinaccio & Trojanowski (2012) emphasize. In the long run, delays with the provision of information will result in higher audit costs (Nalewaik, 2006). Nalewaik (2006) also says that if audit generates positive change or results; then for later ones, people who should provide information will be more willing to help and welcome the audit team. Lindow & Race (2002) states “when audit teams integrate into other functions throughout the business and go beyond traditional

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methods, they have the ability to add value by offering better, more proactive audit services.” At the end of the day, auditing is a service that can be replaced or suppressed if the customer – board of director, sponsor, or other – is not satisfied with the work; place that can be occupied by consultants.

Probably the biggest challenge of the field is the lack of recognition it has, and the lack of description of it in a uniform and commonly accepted manner; in practice and theory, there does not exist a concrete approach to combine project management and audit (German Institute for Internal Auditing, 2008).

Conclusion

Project Audit is the process of verification of the extent to which project realisation complied with the rules and principles of project management for the concrete project; by measuring the actual achievement versus the planned goals, in all the stages of the project life cycle. Project Audit is presented as an innovative approach to auditing which steps away from the traditional auditing process. It is a comprehensive auditing technique which covers technical, financial, and managerial areas; it is definitely not a financial audit and definitely more than just a compliance assessment. Project Audits complement the work of the project reviews as they are more detailed in comparison to the inquiry function of a review; yet both are important to guarantee project success. Project Audit plays an important role in the avoidance of project failure as a project monitoring and controls tool; it helps decision-making on whether continue or not with a project; to promote improvement; and to gain lessons learned for future projects

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and audits. Its applicability is not only to project-based organisations but also to those ones under BAU structures.

The project auditor is a type of auditor which needs to step up from the traditional auditor; one which should, if not possess technical skills to some degree; at least understand the project management processes and principles to be able to provide an aggregated value to the customer. It should move further from its reporting role to one that offers solutions too; and also act as a consultant. The audit project team is not required to have only auditors with technical skills or only with accounting skills; to guarantee the success of the audit, it is recommended to be integrated by members with business, accounting, and technical backgrounds. In some cases, project manager is part of the audit team but this is not recommended as project managers tend to be too attached to their projects and lose objectivity.

Project Audit faces many challenges, starting from the one previously mentioned, about the lack of a common recognition of the field. Another challenge is to overcome the threat that consultancy firms represents to the auditing profession. As a last one, an probably a challenge for audit in general, is to eliminate the bad perception about the auditor's work and the lack of cooperation; which in the long run only brings more delays and costs to the audit project. Based on project management principles, audits should also be treated as a project to guarantee their success and objectives completeness.

Even though this paper adopted this basic definition of what project audit is, it is concluded that until now there is no commonly accepted concept for it.

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The lack of information found on project audit leads to a conclusion that the field is still viewed as a performance audit applied to projects and not as an independent branch of auditing; but it is definitely more than a traditional audit process. This means that in a comparison between the two, Project Audit have the traditional auditing methods as a basis plus the incorporation of project management principles and methodologies; for the project being audited and for the audit itself when considered as a project too. Despite the previous statements, it was able to expose more about project audit based on the papers produced by some authors.

The research of sources about “Project Audit” itself has been challenging; it could be observed that there are not many academic resources that talk about it as an independent audit field. More information was found in web-pages but some of them did not possess the quality required for this academic paper; instead, some guide papers from governmental institutions were used. It was also observed the different terminology used by authors: “project audit”, “project performance audit”, and “project management audit”; all of them mostly refer to the same but with lightly differences, reason why no distinction was made for them. Sources about auditing, financial audit, performance audit and compliance audit were more easily to be found. A big part of the material used for this paper, comes from construction-related papers; presumably due constructions projects are more complex and have higher risks of failure. Despite this, information about auditing engineering and IT projects was found to be helpful. This research showed an evident need of more study in the field, recommendation that will be suggested in the following section.

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It is recommended to do more academic investigation about the field due there are not enough resources when looking for it. This required investigation should also cover project management topics, which is the base for the studied audit. It is suggested to take more cases from the construction industry which can provide significant data due to the complexity of projects in the area. Empirical research should be done on how governments, NGOs and companies are auditing their projects. To make the investigation more applicable to our current situation, the research would be more relevant if it is performed in Ecuador or at least in the Latin American region where project management is not as develop as in other regions of the world.

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ANEX 1

Glossary of Project Management Terms

Project: A unique, transient endeavour undertaken to achieve a desired outcome.

Project Management: The coordinated management of related projects, which may include related business-as-usual activities; that together achieve a beneficial change of a strategic nature for an organisation.

Business-as-usual: An organisation's normal day-to-day operations.

Audit: The systematic retrospective examination of the whole, or part, of a project or function to measure conformance with predetermined standards.

Project life cycles: All projects follow a life cycle and life cycles will differ across industries and business sectors. A life cycle allows the project to be considered as a sequence of distinct phases that provide the structure and approach for progressively delivering the required outputs.