

**POLITEKNIK UNGKU OMAR**

**DIGITALIZATION OF INTERNAL ISO  
AUDIT REPORTING SYSTEM  
(DIIARS)**

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**CIVIL ENGINEERING DEPARTMENT**

**SESSION II 2023/2024**

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**A project report/thesis submitted in partial fulfillment of  
the requirement for the award of the Bachelor of Civil  
Engineering Technology with Honours**

**CIVIL ENGINEERING DEPARTMENT**

**SESSION II 2023/2024**

## **DECLARATION OF ORIGINAL AND OWNERSHIP**

**TITLE: DIGITALIZATION OF INTERNAL ISO AUDIT REPORTING**

**SYSTEM SESSION: Session II 2023/2024**

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## **ABSTRACT**

Internal audit is critical to ensuring that an organization's operations are flexible and efficient. It is a crucial aspect of company management, offering independent and unbiased evaluations of internal controls, risk management strategies, as well as policy and regulatory compliance. At OSK Construction (OSKC) Sdn Bhd, the conventional method i.e. paper-based is still in use for audit documentation. The existing ISO audit reporting system heavily relies on paper-based documentation, resulting in inefficiencies such as loss, damage, prolonged audit completion times, and potential errors in data management. Handling numerous paper documents also escalates the risk of misfiling or misplacement, which renders crucial audit data potentially inaccessible or difficult to retrieve when required. Hence, the highlighted risks have called for the urgent need towards digital transformation to streamline processes, enhance data security and accessibility, highlighting the urgent need for a digital transformation to streamline processes and enhance data security and accessibility. Therefore, this research aims to develop Digitalization ISO Internal Audit Reporting System (DIIARS) for efficient internal audit documentation. The three (3) objectives to be achieved for this research are to identify issues related to audit documentation faced by OSKC, to develop a digitalize internal ISO audit reporting system (DIIARS) and to evaluate the acceptance of Digitalization of Internal ISO Audit Reporting System among users. This research uses a quantitative approach in the form of surveys for objectives 1 and 3. Data analysis is done using the Statistical Package for the Social Science (SPSS) and Technology Acceptance Model (TAM) for the questionnaire, which provides a useful foundation for understanding the behaviors related to technology adoption. For objective 2, develop DIIARS using google sites. The results show that 83.34% of respondents need the DIIARS for internal audit. Hence, this innovation can be used to prepare internal audit documentation.

*Keywords:* internal audit, digital documentation, analysis, effectiveness

## **ABSTRAK**

Audit dalaman adalah kritikal untuk memastikan operasi organisasi adalah fleksibel dan efisien. Ia adalah aspek penting dalam pengurusan syarikat, menawarkan penilaian yang bebas dan tidak berat sebelah terhadap kawalan dalaman, strategi pengurusan risiko, serta pematuhan kepada dasar dan peraturan. Di OSK Construction (OSKC) Sdn Bhd, kaedah konvensional iaitu berasaskan kertas masih digunakan untuk dokumentasi audit. Sistem pelaporan audit ISO yang sedia ada sangat bergantung kepada dokumentasi berasaskan kertas, mengakibatkan ketidakefisienan seperti kehilangan, kerosakan, masa penyelesaian audit yang berpanjangan, dan potensi kesilapan dalam pengurusan data. Mengendalikan banyak dokumen kertas juga meningkatkan risiko salah letak atau kehilangan fail, yang menjadikan data audit penting sukar diakses atau sukar diperoleh ketika diperlukan. Oleh itu, risiko yang diketengahkan ini telah menyeru keperluan mendesak untuk transformasi digital bagi menstimkan proses, meningkatkan keselamatan data dan kebolehcapaian, menonjolkan keperluan mendesak untuk transformasi digital untuk menstimkan proses dan meningkatkan keselamatan data dan kebolehcapaian. Oleh itu, penyelidikan ini bertujuan untuk membangunkan Sistem Pelaporan Audit Dalaman ISO Digital (DIIARS) untuk dokumentasi audit dalaman yang efisien. Tiga (3) objektif yang ingin dicapai untuk penyelidikan ini adalah untuk mengenal pasti isu-isu berkaitan dokumentasi audit yang dihadapi oleh OSKC, untuk membangunkan sistem pelaporan audit dalaman ISO digital (DIIARS) dan untuk menilai penerimaan Sistem Pelaporan Audit Dalaman ISO Digital dalam kalangan pengguna. Penyelidikan ini menggunakan pendekatan kuantitatif dalam bentuk tinjauan untuk objektif 1 dan 3. Analisis data dilakukan menggunakan Pakej Statistik untuk Sains Sosial (SPSS) dan Model Penerimaan Teknologi (TAM) untuk soal selidik, yang menyediakan asas berguna untuk memahami tingkah laku berkaitan penerimaan teknologi. Untuk objektif 2, membangunkan DIIARS menggunakan laman google. Hasilnya menunjukkan bahawa 83.34% responden memerlukan DIIARS untuk audit dalaman. Oleh itu, inovasi ini boleh digunakan untuk menyediakan dokumentasi audit dalaman.

Kata kunci: audit dalaman, dokumentasi digital, analisis, keberkesanan



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## **LIST OF ABBREVIATION**

CIDB	Construction Industry Development Board
OSKC	OSK Construction
OSKP	OSK Property
QSHE	Quality, Safety, Health and Environment
IR 4.0	Innovation Revolution 4.0
TAM	Technology Acceptance Model
IOT	Internet of Thing
RFI	Request for Information (form)
OFI	Opportunity for Improvement
NCR	Non-Conformance Report
ISO 14001	Environmental Management System
ISO 45001	Occupational Health and Safety (OH&S) Management Systems
ISO 9001	Quality Management System
PU	Perceived Usefulness
PEU	Perceived Ease of Use
PBC	Perceived Behavior Control
BI	Behavior Intention
SPSS	Statistical Package for the social sciences

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 INTRODUCTION**

The planning, designing, and building of roads, bridges, subdivisions, buildings, municipal services, and heavy infrastructure are all included in civil engineering technology. Technologists in civil engineering operate in a range of settings, including construction sites. The modern construction sector has long been linked to negative consequences for the environment. An examination of the unauthorized disposal of construction and demolition waste reveals that the Malaysian construction sector needs to give construction waste more consideration. Research indicates that the Malaysian construction sector does not have an appropriate system in place for managing construction waste. The fact that Malaysia produces 8 million tons annually, or an average of 219000 tons each day, attests to this. Furthermore, SW Corp Malaysia reported that 851 instances of illegal dumping (construction waste) were discovered in 2014–2015. It indicates that the Malaysian building industry still lacks construction waste management (Rahim, 2017). As a result, this issue has made Malaysians more aware of the need to improve construction technology to produce sustainable construction and stop the subsequent issues.

Building a sustainable habitat based on ecological criteria is known as sustainable construction. The six guiding principles of sustainable construction are "conserve, reuse, recycle/renew, protect nature, and create non-toxic and high-quality." In addition to being beneficial for the environment, sustainable construction is a strong argument in favor of sustainable practices. There are numerous benefits to implementing environmentally friendly techniques in the construction sector, including less waste material usage, economic stimulation, and sustainability promotion.

Furthermore, building sustainably can be viewed as an investment in the future. We can meet our needs without sacrificing the requirements of future generations by conserving energy, water, and natural resources through reuse, recycling, creative design, and the reduction of waste and pollution (Dobson, 2013). Thus, incorporating the green concept into construction activities is one of the key components of building a sustainable construction.

A sustainable or green building is one thing, but green or green construction is another. Very few contractors include it in their site building design because it is not necessary. That doesn't imply that contractors don't profit from green construction, or that more contractors shouldn't give it greater thought. It seems to reason that building sustainably is a component of green construction.

A definition of a green building is "the construction of buildings to improve employee wellbeing and efficiency, use less energy, minimize waste, and negative environmental impacts." This definition can be obtained by taking the Green Construction concept and eliminating all "extras" beyond the building process. Therefore, sustainable construction is described as the 'avoidance of the destruction of natural resources with a view to preserving an ecological balance.'

It focuses more on the resources utilized, how we use them, and being wise about recycling, minimizing waste, or updating the technology used for the project than it does on the environmental implications of the construction process, such as green construction. This basically entails learning to adapt to the surroundings while maintaining a greater emphasis on the resources themselves. The term "sustainable" has just recently come into use; its use truly took off in the 1980s. Even if it is still relatively new, the concept of longevity in the environment and our resources is crucial to the advancement of the sector.

In contrast to green buildings, which are solely concerned with the management of the final product, it is evident that sustainable and green construction are interdependent. They both stand for the decision to be amiable toward the neighborhoods. They both use similar construction methods. Certainly, they are more closely related than green buildings and green construction. Green building necessitates several significant and little adjustments to the building process.

In terms of green construction technology, "green construction" refers to the variety of cutting-edge tools, materials, adjustments, software, and other innovations utilized in a project's construction phase to support innovation in field construction

techniques, such as automated and semi-automated construction equipment. Construction technology is employed in a wide range of projects, from large industrial complexes to little residential structures. One of the modern construction technologies used in Malaysia is digitizing documents into devices that are user-friendly for employees and help cut down on paper waste. Additionally, this might lessen environmental contamination in the building sector.

Since there is an increased demand for skyscrapers, one of the industries with the quickest growth rates is building. One of the sectors that is crucial to the growth and improvement of the economy as well as the national economy is the construction industry. Even while the construction sector helps with development, it is not an environmentally pleasant industry to work in because poorly planned growth and development can lead to many issues. The public's main concern now is managing the environmental concerns brought on by building. Any danger or prospective risk, regardless of intensity or duration, to the environment encompasses all kinds of repercussions and is referred to as environmental risk. A significant amount of research has indicated that construction is a primary cause of pollution and disturbance to the environment. The four main categories of pollution threats associated with construction are air, waste, noise, and water pollution. The ability to control the dangers necessitates the management or elimination of these types of pollutants. Pressure to use appropriate techniques to enhance environmental performance in the construction industry has resulted from the promotion of environmental risk management and the goal of sustainable development (Rahman, 2014). The building sector in Malaysia has not yet reached complete sustainability, and risks are not adequately managed while the environment is often irreversibly changed. Sustainable construction necessitates that the local construction sector be capable, viable, and aware of the requirements of sustainable construction in all of its operations, according to Tam, Tam, & Tsui (2004). Developers, contractors, architects, planners, and other industry change agents must all contribute in a cooperative and willing manner (Gangoellis, 2011; Christini, 2004; Rahman, 2014).

In addition, digitizing paper documents into digital systems will cut down on waste and improve the system's practicability, improving Malaysian lifestyles in the construction sector. A digital document is a computer file or webpage that contains digital samples of someone's work or products that a company sells. These are frequently presented using a mix of text that provides descriptions and other

information and graphical graphics, including photos of products. Online users can utilize these catalogues to inspect products, which enables personnel to proceed with product installation on site with fewer errors. A body of digital information, such as samples of shared resources information, can also be provided through digital document product material. Depending on the technical department's choices, there is a wide range in the software used to produce digital catalogues. Although interactive documents and product lists can be created using various applications, the general goal of any document's design is to make information easily accessible. Software can be used to create digital documents that can be "flipped" through, much like a real paper, or presented as a slideshow of virtual pages. Other forms may be simpler, presenting the catalogue as a collection of easily navigable Web Pages.

A technical department would usually use a digital document to give data or information about material products to workers who are on the job site. These documents are also used by clients or consultants for comparable objectives, even if the information they provide sometimes reads more like an advertising. For these kinds of systems, a digital document materials product list is frequently included on a website, which may be utilized for installation work on site or to directly link to the products displayed. Additionally, this could make it easier for the drafter to trace the different materials used in that region of the drawing. A digital materials product list might be utilized for non-commercial purposes in different ways. Documents can be used to showcase the work of employees or other individuals since their primary purpose is to display information in an understandable way. To facilitate access to and reference of shared resources within the organization, management and the operation department can also generate a digital record for internal usage (Wiesen, 2021).

## **1.2 RESEARCH BACKGROUND**

The Digital Document Management System (DDMS) is one of the Malaysian government's initiatives for projects under the e-Government Entry Points Projects (EPP), which strives for a paperless environment (MAMPU 2020). The project was carried out in order to improve the delivery of services and record-keeping, as well as the transparency of government, through the use of information, communication, and technology (ICT) (MAMPU 2014).

System development encompasses a structured sequence of steps aimed at defining, designing, testing, and implementing a novel software application or program. This involves both internal development processes to tailor the systems and the establishment of a database system. The system is intricately crafted to capture, store, retrieve, display, process, and share or distribute documents for its intended users. According to Zandbergen (2017), the creation of an effective and successful system hinges upon selecting appropriate software to ensure user-friendly navigation and document viewing within the database. However, there can be some potential confusion or misunderstanding when outlining the definitions, concepts, or methods of information systems and digitization systems.

An information system refers to a structured arrangement for managing information, encompassing activities like collection, organization, storage, and communication of data. In essence, it represents a network comprising interconnected individuals and organizations that collaborate to collect, sift through incoming data, process, generate, and distribute this data to designated users. Consequently, an information system can be defined as a collective assembly of elements operating in conjunction to generate, generate, and share information (Kroenke, 2015).



### **1.3 PROBLEM STATEMENT**

OSK Group Sdn Bhd organization's current ISO audit reporting system is primarily reliant on paper-based documentation, resulting in inherent inefficiencies, resource waste, and environmental problems. The reliance on physical records not only creates storage, retrieval, and accessibility issues, but it also reduces the overall efficiency of our ISO audit processes. In view of the worldwide call for sustainability and the pressing need to reduce environmental effect, it is imperative that this old technique be overhauled by switching to a fully digitalized system.

There are risks associated with conducting manual audits utilizing paper-based methods, and these risks can result in loss, damage, or even potential errors in data management. Paper-based audit procedures are vulnerable to physical harm, such as misplacing them, having them destroyed accidentally, or having them deteriorate owing to environmental elements like fire or water. Handling a lot of paper documents also raise the risk of misfiling or misplacing them, which can make important audit data unavailable or challenging to find when needed. It takes a lot of time and effort to manually gather, record, and organize audit data on paper. Audit times are extended by the inaccuracies and inefficiencies that can occur with human data entry.

By integrating digital technologies that streamline the entire audit process, we hope to reinvent our internal ISO audit reporting. The existing reliance on printed papers not only wastes resources but also creates logistical challenges in managing and sharing information across departments and stakeholders.

Transitioning to a digitalized audit system not only mitigates the risks associated with physical documents but also ensures the integrity, accessibility, and security of audit data. A digitalized approach offers centralized data storage, easy retrieval, and enhanced data security measures, significantly reducing the likelihood of loss, damage, or errors. Thus, making the switch to a digitalized system for audit reporting not only improves operational efficiency but also minimizes the potential risks and vulnerabilities inherent in manual paper-based audits.

The aim is to create an integrated and user-friendly system that enables effective data collection, storage, analysis, and reporting of audit findings by shifting

to a digital platform. The proposed digitization program aims to increase data accuracy, real-time information sharing, make data more accessible, and eventually guarantee higher ISO standard compliance. Moreover, the transition to a paperless workplace is consistent with environmental responsibilities and larger sustainability aims. Decreasing paper consumption not only benefits the environment but also demonstrates a commitment to sustainable practices.

As a result, the urgent need to digitize an internal ISO audit reporting system is not just a matter of technology but it is a calculated step towards increased operational effectiveness, better compliance, and an eco-friendly manner of managing information within the company and conducting audits.

#### **1.4 OBJECTIVE OF STUDY**

The specific objectives for this research are as follows:

- i. To identify issues related to audit documentation since they use manual methods for audit.
- ii. To develop a Digitalization of Internal ISO Audit Reporting System.
- iii. To evaluate the effectiveness of Digitalization of Internal ISO Audit Reporting System using the Technology Acceptance Model (TAM).

#### **1.5 SCOPE OF STUDY**

The scope of study is to completely discover and analyze issues with audit paper based within a corporation that conducts audits manually through direct observation.

The development of a digitalized internal ISO audit reporting system using Google Sites, focusing exclusively on the internal audits of QSHE (Quality, Safety, Health, and Environment) processes and documentation focusing on Opportunity for Improvement , Non Compliance Report and HR Audit.

This evaluation will be conducted through the distribution of a structured questionnaire using Technology Acceptance Model (TAM) implemented via Google Forms, allowing for comprehensive data collection from 36 participants from three department which is QSHE, OSKC and OSKP. The study will use the Statistical Package for the Social Sciences (SPSS) to rigorously assess the data acquired. This analytical approach will allow for a thorough examination of the impact and results of incorporating digital tools into the ISO audit reporting process, with the goal of providing insights into how digitalization improves efficiency, accuracy, and overall effectiveness within organizational audit frameworks.

## **1.6        SIGNIFICANT OF STUDY**

The results of this study will be extremely beneficial to the construction industry, given the critical position that material approval plays in modern internal corporate processes and technology. Internal audit reports should be well documented to ensure more effective audit processes. Companies who apply the study's recommended tactics would see increased efficiency, resulting in smoother and easier operations. Furthermore, the implementation of these guidelines is intended to be user-friendly, ensuring simplicity of operation. This user-friendly approach ensures that staff can simply manage and use the system, which contributes to the general efficacy and streamlined workflow of the organization.

For a construction company, understanding how to digitize its internal ISO audit reporting system is critical to improving audit procedures and operational efficiency. There is a chance to completely transform the audit process by switching from paper-based procedures to digital solutions. The time formerly spent on manual processes is greatly decreased by adopting digital tools, which streamline data gathering, storage, and analysis. This change guarantees data integrity and dependability while also increasing audit speed and accuracy. Furthermore, digitalization makes it easier to obtain audit data instantly, which speeds up decision-making and allows for prompt remedial action. Digital systems not only increase efficiency but also improve stakeholder participation by guaranteeing smooth communication and making the distribution of audit findings simpler. The Digitalization of Internal Iso Audit Reporting System (DIIARS) initiative seeks to enhance the use of technology in construction projects. The researcher believes that deploying this digital audit reporting method will greatly simplify the audit procedure in the building industry. By moving from paper-based documentation to digital format, the solution addresses the inefficiencies associated with old procedures.

DIIARS makes it considerably easier for departments and auditors to trace and obtain records. The digital system provides a consolidated platform for storing and retrieving audit reports, streamlining the documentation process and saving time searching for information. This enhancement not only improves audit efficiency but also allows for improved document structure and administration. Furthermore, the

digital approach saves storage space and offers quick access to information via a website. Employees can rapidly access the digital platform to receive important information without having to print documents. This not only minimizes physical storage requirements, but also supports a more sustainable and efficient audit report management process.

Using traditional paper-based documenting systems is unsustainable. As previously said, activities are often inefficiently executed, resulting in misconceptions during procedures. Documents may go misplaced, and too much paper is used. In addition, the lack of an online reference system results in massive paper waste at the site office. This predicament exists because there is no platform for internal audits or systematic methodology in place.

As a result, this system has been included in the project since users are pleased with the technological improvements in the building. This system simplifies and streamlines the relevant processes. It also helps to decrease errors in printing inaccurate papers, minimizes paper waste, and saves time in operations like installing or storing the internal audit. The digitization of the Internal ISO Audit Reporting System (DIIARS) website will increase the company's technological productivity and this transition to a digitalized ISO audit reporting system has the possibility of improving the construction company's operational agility, data accuracy, and overall, ISO compliance.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTERNAL AUDITING (IA)**

Internal auditing (IA) takes an important role in the business and financial reporting processes in both the corporate and nonprofit sectors (Reynolds, 2000). It is a vital link that supports in monitoring a company's risk profile and finding areas for improved risk management. Internal auditing's primary goal is to improve organizational efficiency and effectiveness through constructive criticism (Goodwin-Stewart & Kent 2006).

Internal auditing, according to Unegbu and Obi (2007), is an essential component of an organization's internal control system, providing following to specified work practices and giving management support. Internal audit operations, according to their point of view, measure, analyze, and assess the efficiency and effectiveness of management-established controls, supporting smooth administration, cost control, capacity utilization, and optimal benefit realization.

According to Adeniji (2004), is an integral component of the internal control system established by an organization's management. Internal auditing is defined by the Institute of Internal Auditors (IIA, 1999a) as an independent, objective assurance and consulting activity aimed to improve an organization's operations. It takes a systematic and disciplined approach to reviewing and enhancing the efficacy of risk management, control, and governance procedures, with the goal of assisting the company in accomplishing its goals.

This concept represents a significant movement in internal auditing, moving away from a primary focus on past responsibility and toward a more forward-looking strategy that helps auditors operate more efficiently and effectively (Nagy & Cenker, 2002; Stern, 1994; Goodwin, 2004).

## **2.2 THE EFFECTIVENESS OF INTERNAL AUDITING**

The effectiveness of internal audit is measured by its capacity to produce the desired results. According to Sawyer (1995), an internal auditor's role includes ensuring that discovered problems are not only fixed but also maintained in their corrected state. According to Van Gansberghe (2005), in the public sector, the evaluation of internal audit effectiveness should be based on its contribution to proving efficient and effective service delivery. As a result, there is a greater demand for improved internal audit services.

In a consultative conference aimed at enhancing public sector internal auditing, Van Gansberghe (2005) identified many elements influencing the effectiveness of internal audit. These elements include perceptions and ownership, organizational and governance structures, legislative features, increased professionalism, conceptual frameworks, and resource allocation.

An effective internal audit includes an unbiased review of financial records, operational information, systems, and procedures, as well as important recommendations for essential improvements. Internal audit has a major impact not only on the efficacy of the particular entities being audited, but also on the overall effectiveness of the company (Dittenhofer, 2001). Furthermore, maintaining the quality of internal audit directly effects the appropriateness of procedures and operations, so adding to the auditee's and the organization's overall performance (Dittenhofer 2001).

The critical function of internal audit in an economy, emphasizing its advantage over external audit in gathering information quickly and finding concerns early on (Xiangdong 1997). Furthermore, Spraakman (1997) employs transaction cost economics theory to demonstrate how internal audit suggestions play an important role in government organization management.

## **2.3 INTERNAL AUDIT QUALITY**

Internal audit quality, as indicated by the office's capacity to produce valuable audit findings and recommendations, is one of the most important aspects that underpins audit effectiveness. The IIA (1999) performance requirements require auditors to organize and perform their job in such a way that they can arrive at valuable audit findings and make recommendations for change. The competence of the office to appropriately plan, perform, and communicate audit results is a proxy for audit quality. As a result, audit quality is undoubtedly a function of broad personnel experience, fair scope of service, and good internal audit planning, execution, and communication.

## **2.4 ACCESSIBILITY**

The main aim for developing a digitizing system is to ensure that specific information becomes easier available and accessible to a larger audience. Frequently, great resources go unnoticed simply because potential consumers are unaware of their existence or have difficulty locating them. This issue gets worse by the distance in distance between persons and the physical facilities where these artifacts are held, which is especially problematic for those living in rural or distant places. However, the deployment of a centralized digitization system acts as a symbol of hope for solving this problem (Kiplie, Yatin, Angutim & Hamid 2018).

Consider this digitization system to be a central location where various, dispersed materials are gathered and properly preserved within a digital field. Bringing together these various pieces of information into one easily accessible web platform is similar to collecting a library of online platform. This consolidation substantially eliminates distance and travel constraints. Physical distance between individuals and storage places is no longer an issue, since Internet connectivity serves as a bridge to these collections.

The entire purpose of establishing a digitization system is to make specific information more accessible to everyone. Sometimes extremely valuable items



remain concealed simply because people are unaware of their existence or are unable to locate them. Consider this: there are excellent resources preserved in places that are simply too far away for most people, particularly those living in rural areas, to travel and easily access. When we collect and store all of this information in a single digital system, it's like opening a door to a treasure trove that everyone can access.

In conclusion, the growth of digitalization technology demonstrates the dedication to democratizing access to information. These systems overcome physical distance and various repositories by integrating diverse materials into consolidated digital platforms. They pave the way for a more inclusive information environment in which anybody with Internet access can explore, learn, and benefit from excellent resources regardless of location. As technology advances, these digitization efforts will be critical in constructing a fairer and more linked world in which knowledge has no bounds.

## **2.5      PRESERVATION OF MATERIALS**

The development of methods for converting physical, paper-based materials into electronic formats represents an outstanding opportunity for improving the protection and preservation of important data. Many historical records, manuscripts, and diverse informative treasures are stored in archives and repositories, many of which are increasingly losing to the effects of time and environmental elements, particularly those in paper or digital form. As time passes, these materials undergo chemical changes that make them more delicate and subject to degradation. To address this worrying trend and preserve the sustainability of these vital elements of information, there is an urgent need to begin their conversion into electronic versions.

These original paper-based resources can be methodically turned into electronic copies via digitization techniques, preserving and maintaining their presence for future. This conversion procedure not only protects these resources from physical degradation, but it also allows for greater access and distribution. Furthermore, the transition from physical to electronic forms reduces the risks of environmental deterioration, natural disasters, or accidental loss, providing a more resilient and safe

preservation plan.

Consider the relevance of preserving historical manuscripts or irreplaceable records of significant cultural, social, or scientific value. When these items are maintained in traditional paper form or as digital prints, they are constantly at risk of damage. Chemicals and aging processes in such materials eventually decrease their quality, resulting in readability loss, picture fading, or even complete disintegration. However, by digitizing these resources, their fundamental substance can be immortalized in a format that beyond time and material fragility restrictions.

In essence, putting processes in place to transform physical documents into electronic versions is an initial move toward preserving our past and vital information. This preservation effort not only secures the preservation of knowledge, but also makes it more accessible and disenable. We make a connection between the past and the future by embracing digitization, protecting our heritage while allowing future generations to study and benefit from these human history treasures.

## **2.6 CAPTURE AND STORE INFORMATION**

Implementation and integration of a digitization system into organizational systems represent an important moment, providing a once-in-a-lifetime opportunity to record and conserve invaluable assets overflowing with critical information and expertise. This system's adaptability spans multiple industries, responding to the needs of business operations, academic interests, and extensive research initiatives. Consider this transformation: worn-out books, treasured handwritten letters, and appealing photos, each containing an invaluable store of learning and historical value. Consider digitization as a transformative force capable of transforming these physical forms into a digital landscape.

This new digital presence not only pays attention to the originals' authenticity, but also acts as a protector, protecting them from the destroys of utilize, damage, and time itself. Consider the limitless possibilities: corporations with the ability to obtain documents from the past at the press of a button, people looking into centuries-old papers without fear of loss, and researchers roaming archives free of the fragility of these valuable materials.

The digitizing system reveals an array of storage options. It provides

enterprises with the benefits of unlimited electronic storage capacity, allowing them to protect a treasure trove of data that was previously restricted by physical limits.

This digital archive is related to an infinite library, a haven where information is not only saved but also made available. The system's qualities, acknowledging its revolutionary impact on how businesses handle and preserve their information. It signals a new era, one in which historical stories, commercial ideas, and educational knowledge have been released from physical limits and are ready for easy access at the click of button (Anderson & Maxwell2004).

## **2.7 ACCESS AND DISPLAY INFORMATION**

The digitization system serves as a portal not only for information users, but also for the targeted audience or consumers looking for quality content. Its primary goal is to facilitate user-friendly access to certain collections by making users aware of the availability of these items online and in electronic formats. The main purpose for developing this system is to enable easy retrieval of data, ensuring users that these collections are accessed via digital channels.

The digitization technique eliminates the challenges associated with manual storage by converting materials to electronic formats and making it available online. These physical stores frequently make it difficult for users to locate and access materials. Furthermore, relying entirely on manual storage methods risks hiding these materials hidden valuable information that future generations may never discover or be aware of.

The need of shifting to digital platforms to prevent important things from falling into obscurity. The digitalization system not only provides ease but it also serves as a defend, ensuring that these information assets remain recognizable and available to users now and in the future (Anderson & Maxwell 2004). It is now possible to bridge the generation gap through electronic preservation and internet accessibility, ensuring that the wealth of information is not lost to time but remains freely available for people seeking knowledge and information.

## **2.8 PROCESS AND COMMUNICATE THE INFORMATION**

The digitization system not only organizes but also humanizes data operations, allowing firms to efficiently manage and communicate digital data to users. This approach enables firms to organize and modify critical data, focusing its importance and relevance to the larger community or users. Furthermore, by highlighting the existence and accessibility of such digitized information via online platforms, it bridges the gap between the organization and its audience, encouraging a more accessible and engaging user experience.

In addition to simply distributing information, this system allows the organization to interact with users by providing knowledge about services, collections, and guiding them through the maze of available information. Users are not only informed but also engaged through this flexible communication channel, promoting a mutual connection between the organization and its users. The system's critical role in supporting successful communication, hence improving user experience and access to valuable information (Anderson & Maxwell 2004)

## **2.9 INTERNATIONAL ORGANIZATION FOR STANDARD (ISO)**

ISO stands for the International Organization for Standardization, which, despite its abbreviation, does not directly represent the initialism "International Organization for Standardization" in all languages. This distinction stems from the various acronyms that this standard wears in different linguistic situations. To establish a generally applicable name across languages, the abbreviation "ISO" was coined from the Greek word "ISOS," which means "equal" (Bünyamin & Ömer 2018).

The primary goal of establishing ISO standards was to create a comprehensive and generally accepted set of principles that could be applied across all industries. These standards act as a unifying framework, bringing together disparate industries under a single worldwide norm. ISO standards are currently accepted in 162 countries and used in a variety of industries (Bünyamin & Ömer 2018).

## **2.10 ISO 9001 QUALITY MANAGEMENT**

The International Organization for requirements (ISO) 9001 is a critical benchmark for quality management systems around the world, with the goal of increasing corporate efficiency by guaranteeing that customers consistently obtain products or services that satisfy high quality requirements. Its primary goal is to provide a framework that promotes continuous development inside enterprises of any size or industry. ISO 9001 has evolved as an adaptable and widely applicable standard since its creation in 1987, built to adapt to the dynamic environment of technology and the ever-changing nature of global trade.

The importance of ISO 9001 rests in its ability to give a structured strategy for enterprises to efficiently manage their operations, improve customer satisfaction, and maintain commitment to providing high quality products or services. Its ideas aid businesses in streamlining operations, eliminating errors, and cultivating a culture of continuous improvement.

This standard is based on periodical updates to keep up with technology improvements and altering market demands. After a three-year modification process, the most recent version, ISO 9001:2015, succeeds its predecessor, the 2008 edition. This upgrade was a large endeavor that required substantial participation and insights from a broad group of specialists from various sectors and geographical regions around the world.

The extensive revision process ensures that ISO 9001:2015 not only maintains the key concepts of its predecessors, but also incorporates contemporary viewpoints and best practices to meet the changing needs of organizations in an increasingly linked and competitive world. As such, it is an essential tool for firms seeking operational excellence and an unrelenting commitment to producing high-quality products and services while adapting to the ever- changing global business market.

## **2.11 ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEMS**

ISO 14001 Environmental Management Systems (EMS) have emerged as a major management tool for addressing environmental degradation at the company level, and fast adoption is taking place around the world, as indicated by the exponential increase in global registrations to the Standard. The Standard is being adopted for a variety of reasons, including compliance and consumer pressure, as well as the possibility for cost savings and a better environment (JamieP. 2005).

Recent research in this field have mostly focused on superimposing basic sustainability principles at various times in the ISO 14001 implementation process, especially during policy development, target setting, and staff training. The purpose of these efforts was to connect method (ISO 14001) with a set of basic sustainability principles, effectively providing the ship with a compass. While this is a conceptual starting step, a set of principles does not always assist managers take more tangible actions in terms of strategic planning, especially when society is so far from being sustainable that the path appears nearly incomprehensible. It is necessary to bridge the gap between guiding ideals and action.

## **2.12 ISO 45001 HEALTH AND SAFETY MANAGEMENT SYSTEMS**

Until nearly a decade ago, the safety profession was primarily concerned with determining if a company had a good safety program by using lagging indicators. However, the profession's focus has moved dramatically over time, with a strong emphasis on leading indicators, as well as a thorough examination of safety and health concerns within an organization. The development of the ISO 45001 safety and health risk management standard is the culmination of the safety profession's progression to a risk-based prevention method analysis. Risk managers should understand how applying ISO 45001 can assist their firms in establishing and maintaining safety cultures that protect their employees, customers, vendors, and business (Edwin G. Foulke, Jr 2019).

ISO 45001 is widely regarded as the "gold standard" in risk management for safety and health. ISO 45001, developed cooperatively by safety and health experts from around the world, is a worldwide consensus and certification standard for

occupational safety and health that is also recognized by the American National Standards Institute (Edwin G. Foulke, Jr 2019).

### **2.13 TECHNOLOGY ACCEPTANCE MODEL (TAM)**

This study is based on the extended Technology Acceptance Model (TAM), which incorporates various factors that will be discussed in the following chapter. TAM, developed by Davis in 1986, examines the impact of technology on user behavior with the aim of establishing a theory around users' interactions with computer technology (Rauniar et al., 2014). This model originates from the "theory of reasoned action" (TRA), which explains a person's behavior based on their intentions and was created by Fishbein and Ajzen in 1975 (Rauniar et al., 2014). While TRA aims to describe human behavior broadly, TAM focuses specifically on the factors influencing a person's acceptance of computer technology (Rauniar et al., 2014).

The core of TAM consists of two main factors: "Perceived Usefulness" (PU) and "Perceived Ease of Use" (PEU), which determine a person's intention to use a technology (Davis, 1986; Liu et al., 2010). In 2000, Venkatesh and Davis expanded the original TAM by developing TAM2, which includes additional factors such as social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use) (Venkatesh and Davis, 2000). Their research indicates that TAM2 provides a deeper understanding than the original TAM by elaborating on the key factor of perceived usefulness, a precursor to usage behavior (Venkatesh and Davis, 2000). Moreover, TAM2 reveals those subjective norms an element of directly affect usage intentions, exerting a greater influence than both perceived usefulness and perceived ease of use (Venkatesh and Davis, 2000). Figure 2.1 illustrates the various factors of TAM2 and their interrelationships.

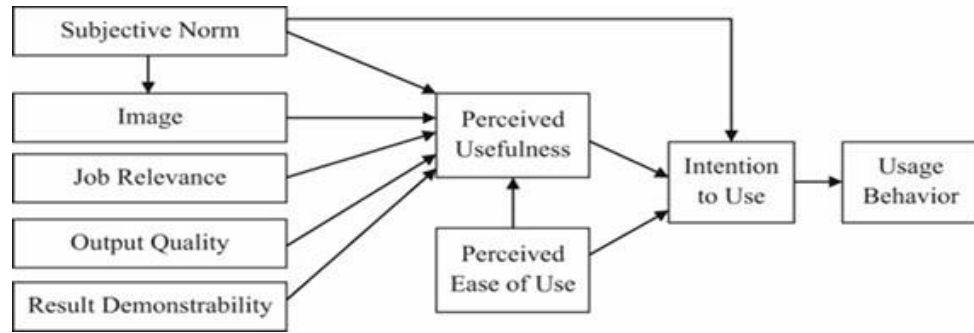


Figure 2.1: TAM2 (Venkatesh and Davis, 2000)

Nevertheless, TAM provides only a general overview of an individual's technology acceptance (Liu et al., 2010). Consequently, it has been adapted by researchers for various contexts, such as mobile business (Sun et al., 2009), online learning communities (Liu et al., 2010), and core banking systems (Nath et al., 2014).

In this study, the extended TAM approach is applied to identify several factors influencing managers' acceptance and attitudes towards website integration for innovation processes. Since TAM is a general model, additional variables have been incorporated into this study's context alongside perceived usefulness (PU) and perceived ease of use (PEU). These variables include perceived behavioral control (PBC), subjective norm (SN), behavioral intention (BI), personal innovativeness (PIIT), and attitude towards using (ATT) social media.

## 2.14 PERCEIVED USEFULNESS (PU)

Perceived Usefulness (PU) is defined as "the extent to which a person believes that using a particular system will enhance his or her job performance" (Sun et al., 2009, p.52). This concept relates to the belief that technology can improve individual performance (Liu et al., 2010). TAM and its extended models have shown that PU can influence a person's objectives in both mandatory and voluntary contexts (Verkasalo et al., 2010). However, previous research has yielded conflicting results about the impact of PU on the adoption behaviour of new technology systems



(Verkasalo et al., 2010). These inconsistencies raise questions about how extensively people adopt social media, as PU and social media acceptance continue to be emerging research fields.

In this study, PU is linked to website by representing the degree to which individuals believe that using website helps achieve their goals of integrating it into innovation processes (Rauniar et al., 2014). The assumption is that the perceived usefulness of website influences managers to adopt this technology for innovation. Nath et al. (2014) further demonstrated that PU significantly affects a person's attitude toward using technology. Thus, understanding PU's role in website acceptance is crucial for determining how managers might leverage the DIIARS in their innovation processes.

#### **2.15 PERCEIVED EASE OF USE (PEU)**

Perceived Ease of Use (PEU) is defined as "the extent to which a person believes that using a particular system will be free of effort" (Sun et al., 2009, p.52). Studies have confirmed that when individuals perceive a technology as easy to use, they are more likely to adopt it (Davis, 1986; Liu et al., 2010). Applying this concept to DIIARS, it is presumed that if website platforms are easy to navigate and use, managers will be more inclined to integrate them into their workflows. Like Perceived Usefulness (PU), PEU significantly influences a person's attitude towards adopting a new technology system (Nath et al., 2014).

#### **2.16 PERCEIVED BEHAVIOR CONTROL (PBC)**

Perceived Behavioral Control (PBC) is defined as the perceived ease or difficulty a person experiences when performing a certain behavior (Ajzen, 1991). On one hand, it is commonly assumed that control beliefs are the primary determinants of PBC. On the other hand, PBC itself influences both Behavioral Intention (BI) and Perceived Ease of Use (PEU) (Ajzen, 2002; Venkatesh et al., 2003). From a psychological perspective, PBC is crucial because it significantly impacts both intentions and actions (Ajzen, 1991). The understanding of PBC stems from research initiated by Bandura (Bandura et al., 1977; Bandura et al., 1980).

One finding from these studies is that confidence in one's ability to perform a specific activity strongly influences that person's behavior. Additionally, PBC, when combined with BI, affects the eventual behavior. For instance, consider two individuals learning to ski. The person who is confident in their ability to manage this challenge will typically learn faster and achieve better results than someone who doubts their own capabilities (Ajzen, 1991).

## **2.17 BEHAVIOR INTENTION (BI)**

Behavioral Intention (BI) is a central concept in Fishbein and Ajzen's Theory of Reasoned Action (1975), widely employed for predicting behavioral intentions and subsequent behaviors. According to this theory, BI serves as a precursor to actual behavior, representing the individual's readiness to engage in a specific action. The Theory of Reasoned Action posits that BI influences an individual's actions provided they perceive a relationship between the anticipated outcomes and their intended behavior (Liu et al., 2005).

## **2.18 TECHNOLOGY PRODUCTIVITY ISSUES**

Over the past 20 years, productivity has increased by 25% across all industries, according to Deloitte research. Just the manufacturing sector was able to achieve a 60% improvement in performance. Remarkably, the building industry's productivity has increased by merely 5% (Alkhalidi, 2020). It is possible to relate the low development in productivity to the challenges faced by construction workers in their line of work. For instance, errors in building design might cause a major delay in the building process. Furthermore, estimating the duration of some operations, such as concrete curing, can be difficult and cause the project to be delayed. To overcome this productivity gap, the construction industry needs to think about digital transformation.

The construction industry's productivity has stayed constant for decades, according to the McKinsey & Company website. The conventional technique of design-bid-build resulted in fragmented and isolated projects. Every construction site is diverse and has a different set of dangers and obstacles. This makes it difficult to improve efficiency and streamline operations in the same manner other sectors like

manufacturing, construction, and retail have (Sriram Changali, 1996–2021). The problem arises, though, when employees are unable to foresee how the data will be used. Another drawback is that embracing technology construction—often referred to as digitalization requires the acquisition of skills related to it, which can seem like practice.

## **2.19 SPSS**

SPSS, formerly known as the Statistical Package for the Social Sciences, has evolved into a powerful statistical analysis tool utilized in a variety of sectors such as social sciences, health sciences, marketing, and education. Its extensive range of capabilities and user-friendly interface have made it a popular choice among both new and expert researchers.

SPSS was created by Norman H. Nie, Dale H. Bent, and C. Hadlai Hull in 1968. SPSS was initially created for social science academics to manage big datasets and do difficult statistical analyses, but it has since undergone multiple upgrades and expansions (Nie, Bent, & Hull, 1970). Its acquisition by IBM in 2009 was an important milestone, allowing for continued development and integration with other IBM analytics products, hence improving its capabilities and user experience (IBM, 2010).

SPSS provides a broad set of statistical techniques, including descriptive statistics, bivariate statistics, numerical outcome prediction, and group prediction. Its modular design enables users to install specialist modules for sophisticated statistical analysis, including IBM SPSS Statistics Base, IBM SPSS sophisticated Statistics, and IBM SPSS Regression (Pallant, 2020). The software's syntax language also allows for automation of analyses and repetitive operations, which is useful for large-scale research initiatives (Field, 2018). SPSS is widely used in the social sciences, health sciences, education, and marketing to analyse survey data. It enables researchers in the social sciences to investigate correlations between variables, test theoretical models, and validate measurement tools (Bryman & Cramer, 2011). SPSS is used in health research to evaluate clinical trial data, patient surveys, and epidemiological studies,

revealing important information about health outcomes and risk variables (Munro, 2005).

SPSS is widely utilized in a variety of research disciplines. In the social sciences, it makes survey data analysis easier, allowing researchers to quickly do factor analysis, cluster analysis, and regression analysis (Bryman & Cramer, 2011). SPSS is used by health researchers for clinical trials and epidemiological studies because of its ability to manage complex data, as well as perform survival analysis and logistic regression. Marketing analysts use SPSS to evaluate consumer behavior, segment markets, and create predictive models (Hair et al., 2019).

The key benefits of SPSS are its ease of use, broad data management capabilities, and powerful statistical analysis tools. Its graphical user interface enables users to do complex studies without substantial programming experience, making it available to a wide spectrum of academics (Tabachnick and Fidell, 2019). However, several restrictions exist, such as the expensive cost of individual user licensing and potential performance concerns with very big datasets (Hinton, McMurray, & Brownlow, 2014).

SPSS remains a cornerstone for evaluating questionnaire data, with a wide range of tools and functionalities to meet the different needs of researchers. Its ongoing evolution ensures that it is both relevant and successful in the continuously changing field of data analysis. Despite its drawbacks, SPSS's features make it an essential tool for researchers seeking to do extensive and trustworthy questionnaire studies.

## **2.20 CONCLUSION**

In the construction industry, achieving the green factor should apply not just to the building but to the entire project. This is because a project that adheres to the green factor in its whole will aid in the systematic and efficient management of construction. The ideal way to integrate sustainability for this project is to build a new system on the construction site. When it comes to utilizing traditional methods on construction projects, the construction sector needs to adjust to the latest technological systems. The application for a digital document is called "DIIARS." This system will be utilized for both on-site and office document management. The task of linked

construction will be made easier by this system, which will benefit the user's system and make it lighter.

Create a digital system and software to solve the issue; this will greatly benefit the user and allow for the implementation of sustainability in the solution. The ability to manage and cut down on time and expenses for completing documents, the ability to avoid using paper, and the ability to locate information quickly and easily are just a few advantages of this system and its apps. A project's or product's success also heavily depends on the sustainability of the research approach.

To meet the goals, more systematic research and design processes and methods are required for the project. Design thinking, a research methodology comprising five processes—empathies, define, ideate, prototype, and test—is applied in this study. This project will employ the same methodology that has been used to identify the issue and an appropriate solution from the outset to the finish. The construction industry is beginning to embrace technology to boost production, improve teamwork, and finish projects on schedule and under budget, all of which raise profit margins. The fact that businesses who do not make investments in new technologies and solutions will eventually lose ground to those who strategically adopt and apply technology solutions may be a bitter pill to chew. A construction company that doesn't innovate will eventually fail.

In conclusion, the digital transformation of the construction sector through construction technology presents a plethora of stimulating prospects, spanning from securing a competitive edge to providing improved labor conditions for employees and reducing carbon emissions into the environment. According to researchers, Malaysia's construction industry will eventually reach a point where digitalization technology is required for all business sectors and is no longer a choice.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter will comprehensively detail the methodology and procedural steps employed in developing the system. It will delineate the methods utilized for problem identification and the systematic approach utilized throughout the project's duration. This method aims to fulfill the project's objectives and attain optimal results. It will elaborate on the research-specific methodology chosen for this study. Furthermore, this chapter will explicitly outline each component integral to conducting the research, including the population, population frame, and the sampling techniques employed for interviews. Additionally, it will offer a detailed explanation of the chosen mode of analysis and the methodology for data collection.

Observations to assess the system's effectiveness will be conducted during task implementation in this chapter. Additionally, design modeling will be detailed. To enhance the project's value, both primary and secondary sources were utilized for studies. Primary sources involved the use of questionnaires and observations, while secondary sources relied on data collection and analysis. A procedural pathway, integral to this project and applicable in the on-site work environment, will be appended to this chapter. Observations during task execution will gauge the practicality of the applications. Concept simulation is also addressed in this section. The utilization of primary and secondary sources aims to augment the project's value, with comprehensive studies conducted through these sources.

During this phase, the prototype undergoes customer testing to gauge their satisfaction with the solution. Any identified areas for enhancement are addressed to refine the prototype further. A questionnaire is planned to be administered among the staff management, including roles like QSHE staff, Site Engineer, Site General Manager, and all employees who are responsible in audit. Observations will be made

during task implementation to assess the system's effectiveness.

To improve the project's value, feasibility studies have been conducted using both primary and secondary sources. The primary sources involved conducting questionnaires and observations, while the secondary sources comprised data collection and analysis. The questionnaire's purpose is multifaceted firstly, to gather perceptions and knowledge relevant to the researcher's project, and secondly, to gather opinions that could contribute to enhancing the application. Furthermore, the questionnaire aims to solicit feedback from targeted users regarding their agreement or disagreement with the researcher's idea for developing this website.

### **3.2 DESIGN RESEARCH**

Design research entails the framework comprising various research methods and techniques selected by a researcher. This framework enables researchers to focus on methods suitable for the subject matter, setting up studies for success. This approach is particularly pivotal in planning any observation. Monitoring steps from implementation helps identify potential issues that may arise during the process. Adjustments are necessary in case of critical problems that could lead to failure in the implementation of the work. Subsequently, implementing control measures becomes imperative to ensure a consistent workflow.

In essence, design research serves as a structured approach to plan and execute specific research endeavors. It plays a pivotal role by encompassing four crucial considerations: establishing a conceptual framework, identifying the subjects and topics for study, and determining the tools and methodologies for collecting and analyzing data. The primary aim of design research is to elucidate and describe the researcher's methodology, offering a study plan that enables accurate assessment in conducting usability using the Digitalization of Internal ISO Audit Reporting System.

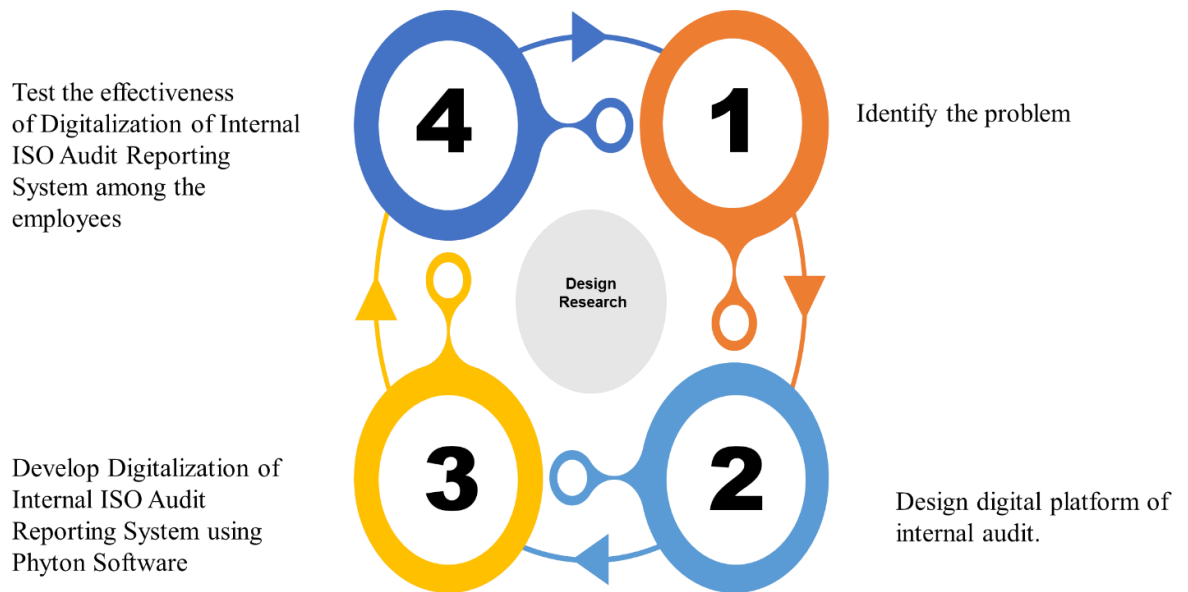


Figure 3.1: Design Research for DIIARS

### 3.3 DEVELOPMENT OF RESEARCH

The research progression in this study was presented as a research framework. Figure 3.2 below illustrates the research development in this study, depicting the sequential flow of stages. The diagram delineates the research development process, commencing with the literature review, followed by the identification of the problem statement, conceptualization of innovative ideas, creation of the system or product, and culminating in the testing and evaluation phase to assess the product's effectiveness.

Research design acts as a thorough plan directing the entire research process, commonly partitioned into three principal phases. During Phase 1 (in figure 3.2), researchers engage in planning and conceptualization. Here, they delineate the research problem, set objectives, and devise pertinent questions or hypotheses. Through a review of existing literature, researchers pinpoint gaps in knowledge their study aims to address. Additionally, they opt for the most suitable methodology, whether qualitative, quantitative, or mixed methods, and establish sampling techniques along with sample size. This initial phase lays the groundwork for the study, offering guidance and clarity for subsequent steps.



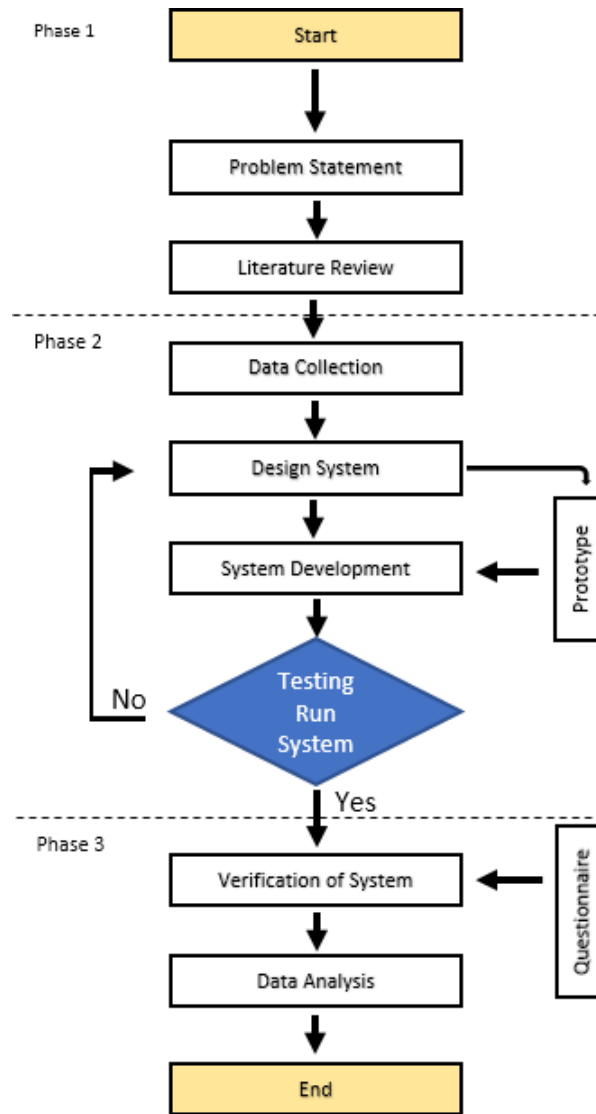


Figure 3.2: Research Methodology Flowchart

Phase 2, researchers proceed to the data collection and implementation stage. This entails executing the planned research design. They select specific methods and instruments for data collection, such as surveys, interviews, experiments, or observations. Attention to detail is paramount to ensure the reliability, validity, and ethicality of data collection methods. Researchers collect data from the chosen sample population in accordance with the predetermined methodology. This phase requires meticulous execution to procure accurate and pertinent data crucial for effectively addressing the research questions or hypotheses.

In Phase 3, researchers delve into the analysis and interpretation of the amassed data using SPSS. This study is based on the extended TAM which

consists of different factors that will be presented. TAM inspects the influence of technology on a user's behavior and was developed by Davis (1986) with the aim of establishing a theory of a user's computer technology behavior (Rauniar et al., 2014). The TAM consists of one main factor, "Perceived Usefulness" (PU) that influences a person's intention to make use of a technology (Davis, 1986; Liu et al., 2010). This encompasses organizing, synthesizing, and comprehending the data using appropriate quantitative analysis techniques which 37 respondents were involved in. Researchers also conduct a critical evaluation of potential limitations and biases in the data, along with discussing the implications of their findings. Drawing conclusions based on the analysis, researchers contribute to the existing knowledge base in the field and offer insights that may steer future research endeavors. This phase serves as the culmination of the research design, consolidating findings to elucidate the research questions initially posed.

The importance of an effective system for designing and developing systems cannot be overstated in ensuring the smooth creation and operation of processes. A structured system is essential for guiding the entire workflow when developing a system. The complete process of conceiving, building, and implementing systems adapted to specific objectives is represented by system design and development. It entails a series of intricately linked steps, beginning with requirement analysis to determine the system's purpose and requirements.

This framework in figure 3.2 served as a guiding principle for the seamless execution of the project. The study's process is delineated into several phases, as depicted in the accompanying diagram. This developmental research encompasses the entire journey from inception to the completion of Digitalization of Internal ISO Audit Reporting System. Within this process, the emphasis was on crafting a comprehensive flowchart for the system, ensuring a structured path for the project's smooth execution according to the planned trajectory. The flowchart acted as a visual representation, enabling a systematic approach and ensuring adherence to the project's intended course.

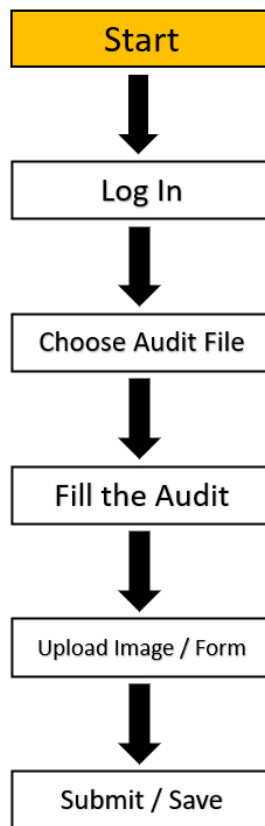


Figure 3.3: System design and development



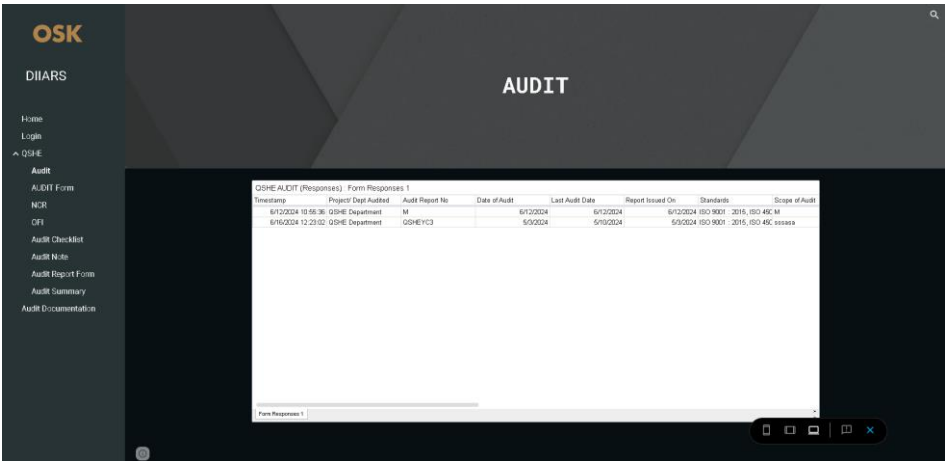
### 3.4 SYSTEM DESIGN AND DEVELOPMENT

The system's design takes shape through thorough planning and architecture, outlining its structure, components, and interfaces. The concept is then brought to life in the development phase, which includes coding, integration, and deployment, resulting in a functional system. Thorough testing ensures that it meets the necessary specifications, while continuing maintenance ensures its dependability and usefulness. This iterative method, which emphasizes user-centricity, scalability, security, and compliance, guarantees that the resulting systems suit user expectations, adapt to changing demands, and adhere to industry standards, fostering efficiency and dependability in their operation.

The system design provides a comprehensive overview of the website and its overall functionality, which is essential for users and researchers to grasp how the site operates. It also explains the functions of each button within the website, ensuring that it is user-friendly and accessible for future use by employees. System design involves specifying elements such as modules, architecture, components,

interfaces, and data based on given requirements. This process includes defining, developing, and designing systems to fulfill the specific needs and requirements of a business or organization (Bennett, 2021). Table 3.1 shows a function of DIIARS website. Designing and developing a web-based system is crucial to ensure the seamless creation and operation of processes. A systematic approach is essential in guiding all aspects of website development. System development is the process of creating or altering systems, along with the processes, practices, models, and methodologies used to develop (Blanchard, 2010).

Table 3.1: Function of DIIARS website

No	DIIARS Interface	Description
1		<p>This is the homepage of the website before user log in the account.</p>
2		<p>Log in to the account after sign up. The approval will be done by admin user.</p>
3		<p>After the user has log in, user can see the home in the website. And click the page above to start exploring the website. Users can see the audit documentation that has been done here.</p>

4

AUDIT REPORT DETAILS

**Project/ Dept Audited \***

Choose
▼

**Audit Report No \***

Your answer

**Date of Audit \***

Date

mm/dd/yyyy

**Last Audit Date \***

Date

mm/dd/yyyy

**Report Issued On \***

Date

mm/dd/yyyy

**Standards \***

☐ ISO 9001 :2015

☐ ISO 45001 :2018

☐ ISO 14001 :2015

**Scope of Audit \***

Your answer

**Audit Team \***

Your answer

This page mentions to fill the google form and uploading the audit documentation and status for each audit.

5

**OSK**

DIARS

- Home
- Login
- ^ OSHE
  - Audit
  - Audit Form
  - NCR
  - OPI
  - Audit Checklist
  - Audit Note
  - Audit Report Form
  - Audit Summary
  - Audit Documentation



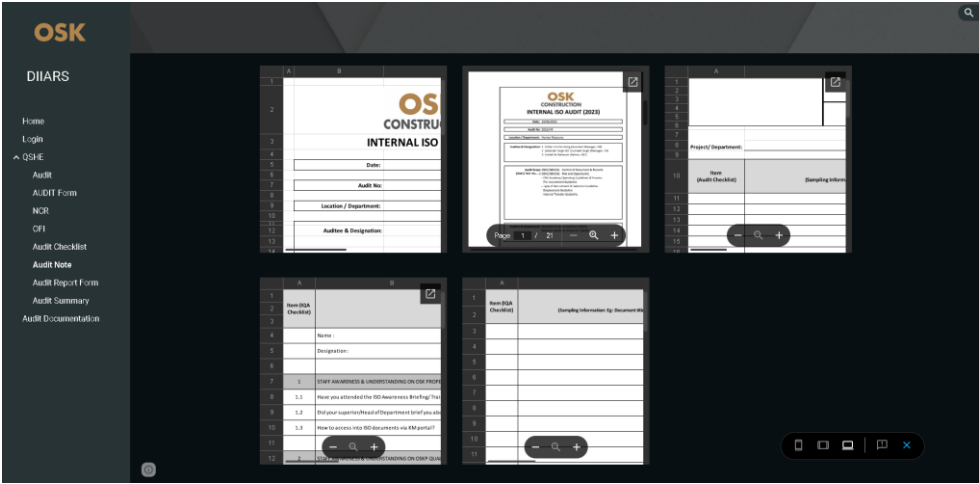
## NON CONFORMANCE REPORT (NCR)

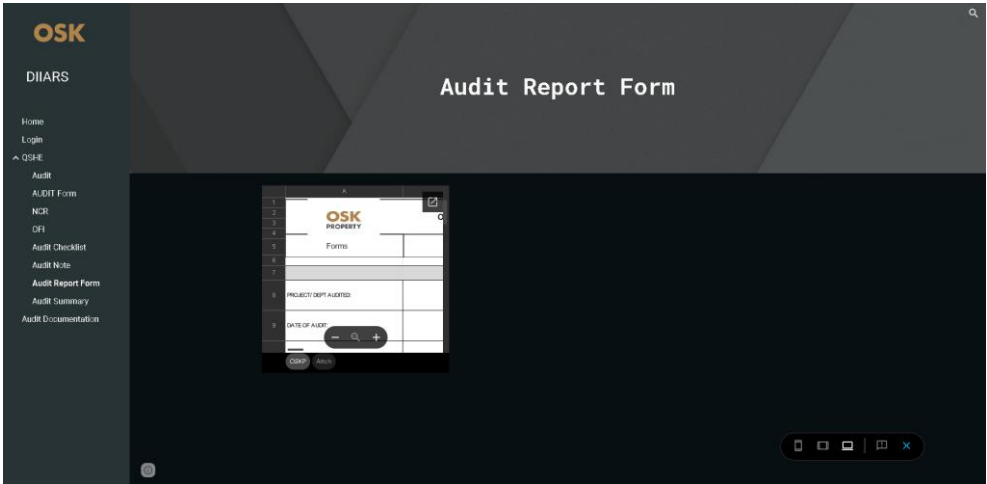
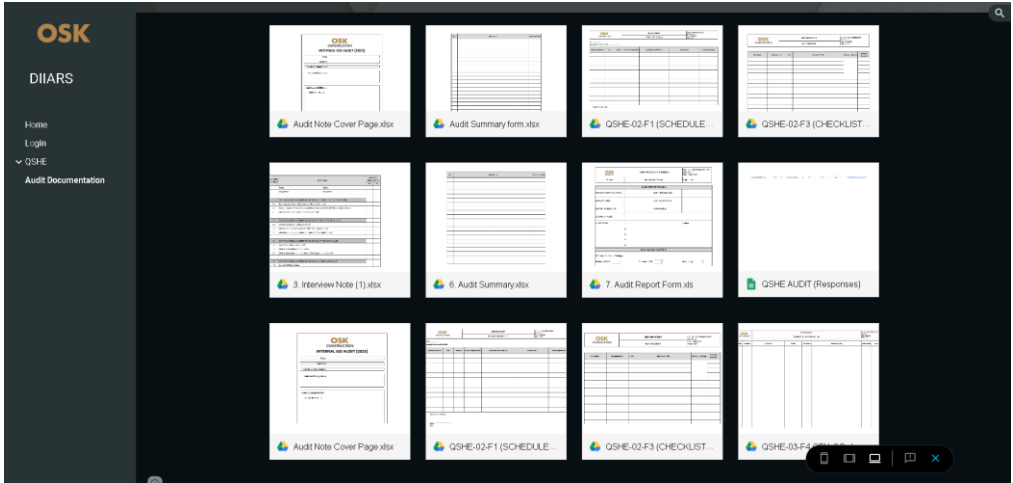
This screenshot shows the first part of the Non-Conformance Report (NCR) form. It includes fields for NCR No., Date Issued, and a section for 'NON-CONFORMANCE' with a table for recording details.

This screenshot shows the second part of the NCR form, focusing on the investigation process. It includes fields for 'Investigation', 'Cause', 'Effect', and 'Action', along with a table for recording these details.

This screenshot shows the third part of the NCR form, focusing on the verification and closure process. It includes fields for 'Verification', 'Status', and 'Closure', along with a table for recording these details.

This page is focus on Non-Conformance Report (NCR) audit and NCR documentation only.

6		<p>This page is focus on Opportunity for Improvement (OFI) audit and OFI documentation only.</p>
7		<p>This page is focus on Audit Checklist audit and documentation only.</p>
8		<p>This page is focus on Audit Note audit and audit note documentation only</p>

9		<p>This page is focus on audit report form.</p>
10		<p>This page storing all audit documentation which is NCR, OFI, audit notes, audit cover, interview note, audit summary, schedule and etc.</p>



### 3.5 TYPE OF QUESTIONNAIRE

There are several types of self-administered surveys; the most popular ones are online and postal/mail questionnaires (Bryman, 2012). There are two kinds of surveys available online which are email surveys and web surveys. Web surveys (Google Form) are used in this research because of its many benefits (Bryman, 2012). Because they may be completed online, web surveys are an affordable and useful method for gathering data from a big number of respondents (Miller and Brewer, 2003). Web surveys were selected for data gathering because this study is primarily concerned with DIIARS. One distinguishing feature of a web survey is that it is distributed through a website that responders are directed to (Bryman, 2012). Web surveys provide several advantages, such as customizable looks, text box response simplicity, easy programming, and the ability to download respondents' answers automatically into a database (Bryman, 2012). A link to the online survey was inserted into WhatsApp's to compile all the data in one location.

### 3.6 SURVEY CONTENT

A questionnaire's survey content refers to the specific questions and items included in the survey that are aimed to collect data from respondents. The content can vary significantly based on the survey's objective, target audience, and data type. Table 3.2 until 3.5 is the final question of the questionnaire for PU, PEU, PBC and BI respectively.

Table 3.2 Questionnaire for PU

Concept	Question	Measurement
PU 1	B1. DIIARS enable me to accomplish tasks more quickly.	6 Point Likert Scale
PU 2	B2. DIIARS have improved the quality of innovations within our business.	6 Point Likert Scale
PU 3	B3. DIIARS make it easier to generate Internal Audit Reporting.	6 Point Likert Scale
PU 4	B4. DIIARS have improved the reporting productivity.	6 Point Likert Scale
PU 5	B5. The use of DIIARS increase the effectiveness of performing tasks (e.g. Clarity and Accuracy).	6 Point Likert Scale

PU 6	B6. DIIARS provide thorough information for my purposes.	6 Point Likert Scale
PU 7	B7. The advantages of DIIARS in reporting processes outweigh the disadvantages.	6 Point Likert Scale

#### Perceived Ease of Us

Table 3.3 Questionnaire for PEU

Concept	Question	Measurement
PEU 1	C1. Learning to operate DIIARS is easy for me.	6 Point Likert Scale
PEU 2	C2. My interaction with DIIARS is understandable and clear.	6 Point Likert Scale
PEU 3	C3. I find it easy to get DIIARS to do what I want it to do.	6 Point Likert Scale
PEU 4	C4. Using DIIARS enable me to have more accurate information.	6 Point Likert Scale
PEU 5	C5. DIIARS are easy to navigate.	6 Point Likert Scale

#### Perceived Behavior Control (PBC)

Table 3.4 Questionnaire for PBC

Concept	Question	Measurement
PBC 1	D1. I am able to confidently use DIIARS for audit documentation processes.	6 Point Likert Scale
PBC 2	D2. I have the knowledge to use DIIARS for audit documentation processes.	6 Point Likert Scale
PBC 3	D3. I have the resources to use DIIARS for audit documentation processes.	6 Point Likert Scale
PBC 4	D4. I have control over using DIIARS for audit documentation processes.	6 Point Likert Scale

## Behavior Intention (BI)

Table 3.5 Questionnaire for BI

Concept	Question	Measurement
BI 1	E1. I intend to using DIIARS for audit documentation.	6 Point Likert Scale
BI 2	E2. I intend to frequently use DIIARS to perform audit documentation.	6 Point Likert Scale
BI 3	E3. Assuming I have access to DIIARS for audit documentation, I intend to adoptit.	6 Point Likert Scale
BI 4	E4. Given that I have access to DIIARSfor audit documentation, I predict that I would adopt it.	6 Point Likert Scale

### 3.7 SAMPLING

The managers in the sample, which was chosen from a population (Bryman, 2012), were employed in different industries and in different nations. "The segment of the population that is selected for investigation" is how Bryman (2012) defines a sample. Table 3.6 Shows determining Sample Size from a given population.

According to Bryman (2012; p.187), the sampling frame is a list of all units in the population from which the sample will be selected. The requirements were: (1.) OSK staff from three department whisch is OSKC, OSKP and QSHE.. The study targeted managers who usually involved in internal audit regarding its inclusion into innovation processes. (3.) Some OSK staff may not actively participate in these internal audit. As a result, determining the number of sample frames might be problematic.

*Table for Determining Sample Size from a Given Population*

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size.  
*S* is sample size.

Figure 3.6: Table for determining Sample Size from a given population (Krejcie & Morgan, 1970)

As previously mentioned, web surveys were employed to gather data. A thorough search of corporate lists was done to obtain contact information for the google form survey. To ensure that only managers meeting the study's criteria participated in the questionnaire, the survey asked about their department within the OSK company. Additionally, the introduction text emphasized that the study required insights from managers. For these department OSKC, OSKP and QSHE (40 population) who are responsible in internal audit documentation, allowing the researcher to ensure that the questionnaire reached the desired target group. Figure 3.6 shows the population and total

sample should be taken, so researcher took 37 people as a sample to participate in the questionnaire.

### **3.8 DEVELOP DIGITALIZATION OF INTERNAL AUDIT SYSTEM(DIIARS) DATA ANALYSIS AND RESULTS**

The website for DIIARS was created using free software called google sites. Employees can use this website to develop the digital platform for internal audit documentation or information. To facilitate the process of updating information or data by importing it into the website dashboard, researchers must first list the audit documentation and others form in Excel before developing the website. It is also possible to export the data or information from the dashboard webpage. Researchers can make any necessary corrections to the data using the DIIARS website's dashboard.

### **3.9 IDENTIFY THE LIST OF AUDIT DOCUMENTATION**

Internal audits are often assembled into a single document and kept in a file. Nevertheless, this method does not group documents according to types of documentation, which results in a large amount of paper waste and makes it challenging for staff members to find particular facts or information. Finding an exhaustive list of audit material is crucial to audit preparation. This entails compiling and arranging different papers, like the audit plan that describes the goals, procedures, and scope of the audit. Working papers for the audit process are also very important, these include notes from interviews, records of observations, and analytical techniques utilized. Reference sources are checked to guarantee correctness and compliance in the audit paperwork, including organizational rules, standards, and regulatory requirements. Recording findings, conclusions, and recommendations is an essential step in the audit process, which ends

with the creation of an audit report. Verification of corrective actions done, management replies, and follow-up actions are all included in the post-audit paperwork.

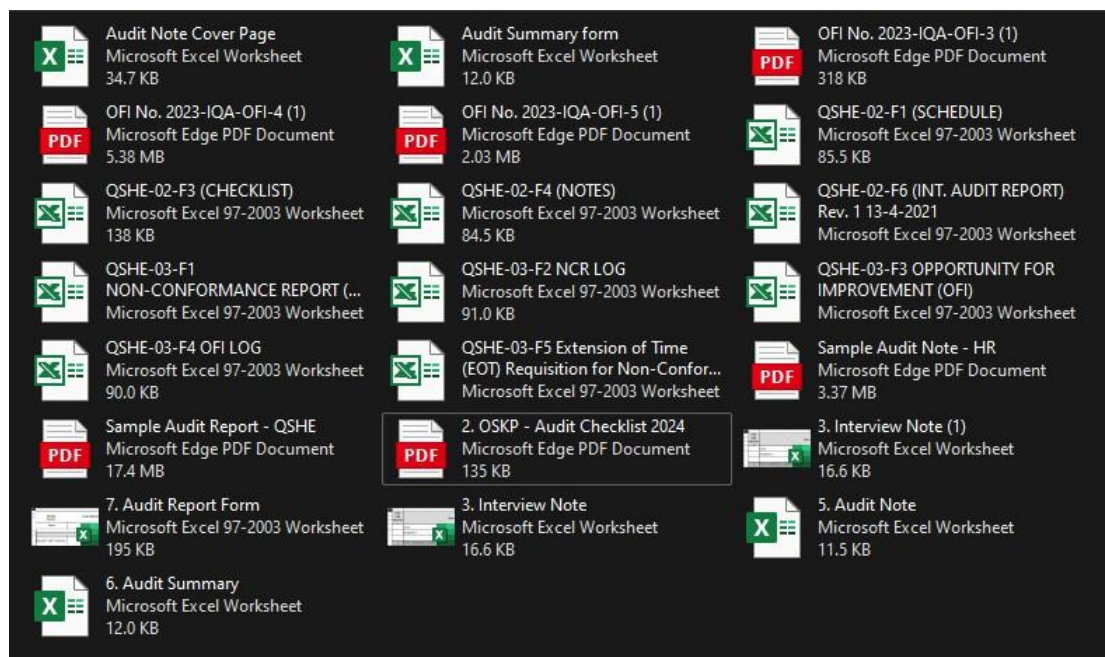


Figure 3.4: List of Audit Documentation

Upholding appropriate documentation guarantees accountability, openness, and compliance with audit requirements. To ascertain the products utilized, this entails consulting the approved OFI, NCR, and audit report. Before finalizing the listing under the direction of the designated authority, confirmation from the technical team which is more to QSHE Department is essential.

### 3.10 GANTT CHART

The Gantt charts below show a complete project timeline spanning September 2023 to June 2024, with major tasks and milestones distributed throughout stages.

The project begins in September 2023 and runs until January 2024 (figure 3.5), with WBL registration and workplace research, including the submission of relevant appendices and data collecting preparation. This phase will be completed by early October. The planning for data collection, which includes resource identification and selection, begins in mid-October.

Project implementation and development begin in mid-October, with data collecting and product development taking place concurrently until late November. The project's test runs take place in November. Results and analysis follow, with results interpreted between late November and mid-December, and all data summarized by the end of December. Report writing lasts from late December to mid-January.

From February to June 2024 (figure 3.6), the emphasis turns to ongoing report writing and preparation for the final-year project dissertation and presentation. Data collecting and product development continue alongside these duties, with a test run and outcomes analysis scheduled for April. By May, the final report will be completed and submitted to the industry. The project culminates in June with final dissertation preparations, industrial panel presentations, and submission of the final report.

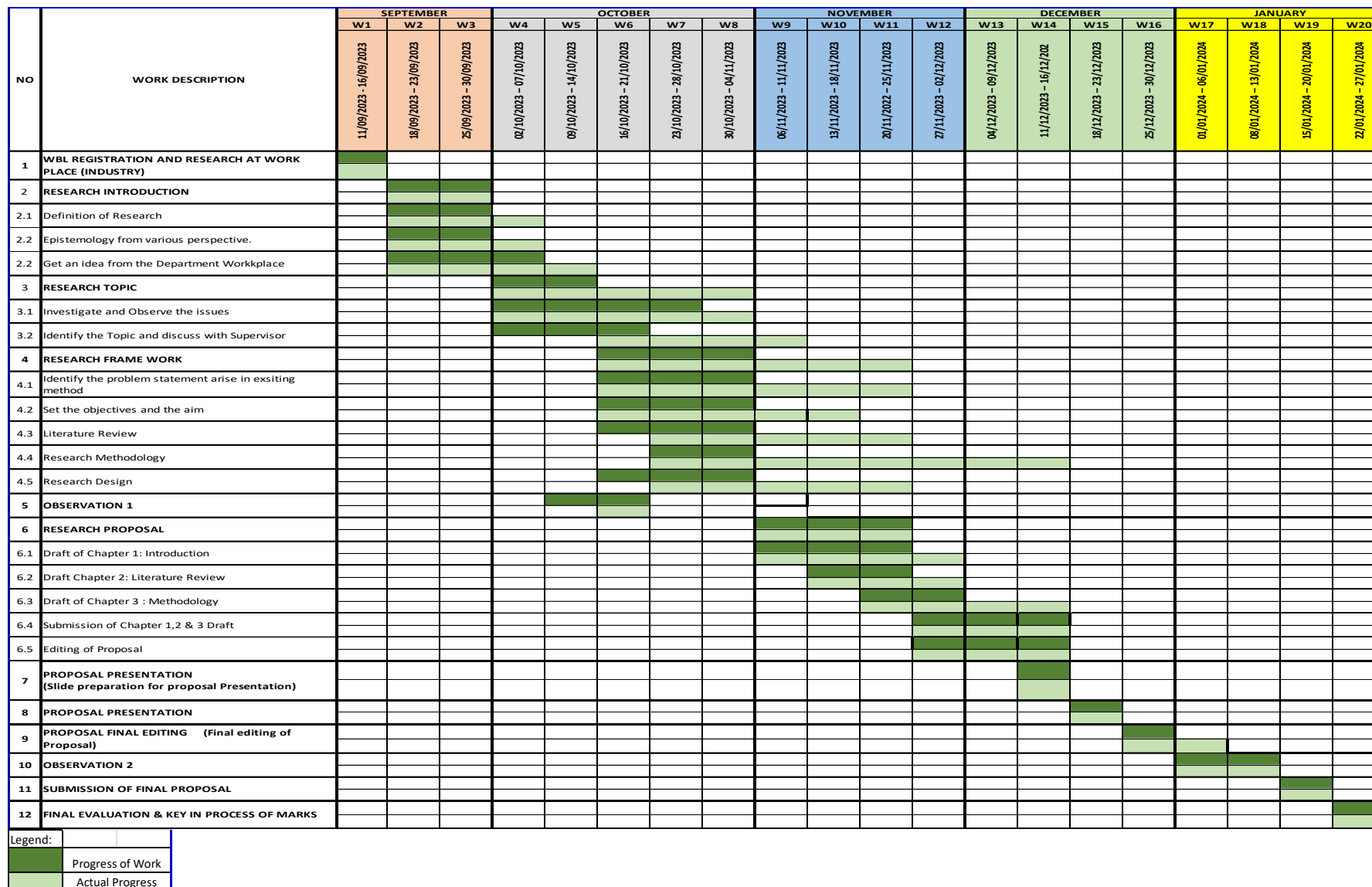


Figure 3.5: Gannts Chart Semester 7



NO	WORK DESCRIPTION	FEBRUARY			MARCH					APRIL				MAY				JUNE			
		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20
		29/01/2024 - 03/02/2024	05/02/2024 - 10/02/2024	12/02/2024 - 17/02/2024	19/02/2024 - 24/02/2024	26/02/2024 - 02/03/2024	04/03/2024 - 09/03/2024	11/03/2024 - 16/03/2024	18/03/2024 - 23/03/2024	25/03/2024 - 30/03/2024	01/04/2024 - 06/04/2024	08/04/2024 - 13/04/2024	15/04/2024 - 20/04/2024	22/04/2024 - 27/04/2024	29/04/2024 - 04/05/2024	06/05/2024 - 11/05/2024	13/05/2024 - 18/05/2024	20/05/2024 - 25/05/2024	27/05/2024 - 01/06/2024	03/06/2024 - 08/06/2024	10/06/2024 - 15/06/2024
1	WBL REGISTRATION AND RESEARCH AT WORK PLACE (INDUSTRY)																				
1.1	Submission Appendix B1 and B2 to PUO																				
1.2	Preparation of Data Collection.																				
2	PREPARATION FOR DATA COLLECTION																				
2.1	Resources identification and selection.																				
3	PROJECT IMPLEMENTATION AND DEVELOPMENT																				
3.1	Data Collection																				
3.2	Product Development																				
3.3	Test run the project																				
4	RESULTS AND ANALYSIS																				
4.1	Interpret the results																				
4.2	State and summarize all the results																				
5	REPORT WRITING																				
5.1	Continuation on the writing of final report.																				
5.2	Preparation For Final Year Project Dissertation																				
5.3	Presentation at industry																				
6	PREPARATION FOR FINAL YEAR PROJECT DISSERTATION AND PRESENTATION																				
8	FYP PRESENTATION																				
9	PRESENTATION WITH INSUDTRIAL PANELS																				
10	FINAL REPORT SUBMISSION																				

Figure 3.6: Gantt Chart Semester 8

## **CHAPTER 4**

### **DATA ANALYSIS AND RESULTS**

#### **4.1 INTRODUCTION**

This chapter shows the empirical findings and conducts a thorough analysis, which is supported by a variety of visuals and tables, by carrying out the methodology decisions. The chapter opens with a thorough analysis of the sample population's demographics, including the respondents' ages, genders, and professional backgrounds. The basic knowledge of the participants established in this section is essential for comprehending the analyses that follow.

The chapter focuses into testing of dependability after providing an overview of the demographics to make sure the data gathered is trustworthy and consistent. Validating the integrity of the survey instruments utilized in the study requires these reliability tests. The chapter then looks into correlation analyses, which look at the connections between the various variables in the dataset. Finding possible patterns and relationships that could support the study's hypothesis depends on this stage.

#### **4.2 EVALUATE THE EFFECTIVENESS OF DIIARS**

This survey presents the results of a questionnaire distributed to a few departments, which are OSKC, OSKP and QSHE. The questionnaire consists of five (5) sections: Section A (Demographic Profile), Section B (Perceived Usefulness (PU)), Section C (Perceived Ease of Use (PEU)), Section D (Perceived Behavior Control (PBC)) and Section E (Behavior Intention (BI)).

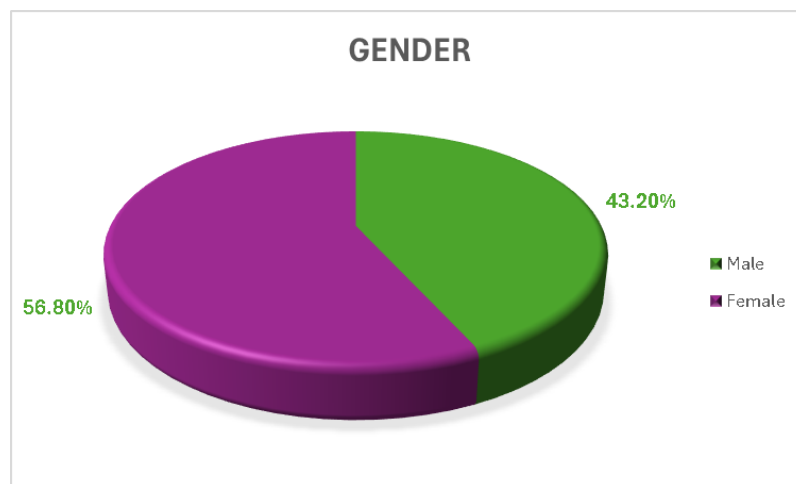


Figure 4.1: Gender group

Within a group, the gender distribution (figure 4.1) is shown in the first pie chart. It illustrates that, of the group, men make up 43.20% (shown by green) and women 56.80% (represented by purple). This suggests that there is a little greater proportion of females in the group than males.

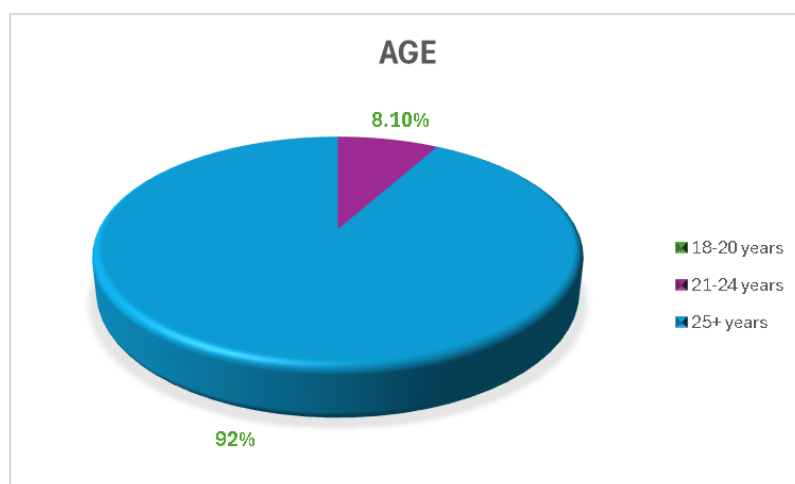


Figure 4.2: Age group

The figure 4.2 pie chart represents the age distribution within the same group. It is divided into three segments based on age ranges: 18-20 years, 21-24 years, and 25+ years. The chart shows that the 18-20 years age group, depicted in green (0%), while the 21-24 years age group, shown in purple, makes up 8.10% of the group. Most of the group falls into the 25+ years category, represented in blue, which constitutes 92%.

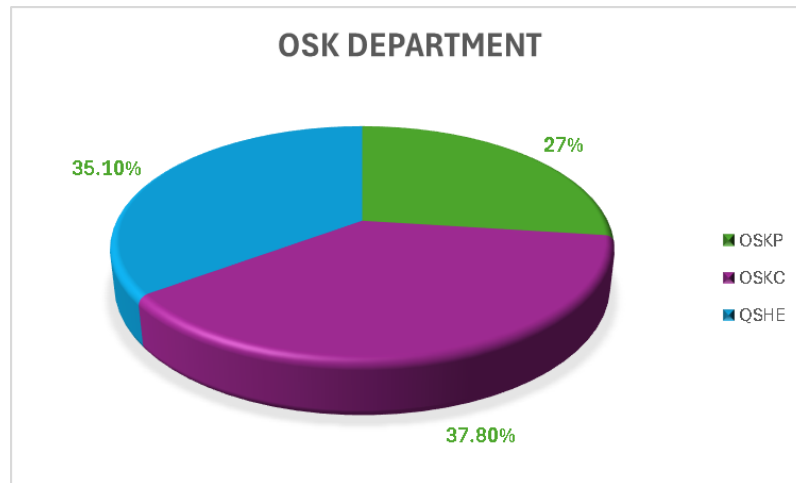


Figure 4.3: OSK Department group

The allocation among the three OSK departments (figure 4.3) is seen in the third pie chart. These divisions are QSHE, OSKC, and OSKP. OSKC, represented in purple, makes up the greatest component of the group at 37.80%, while OSKP, represented in green, makes up 27% of the group. QSHE, which is shown in blue, makes up 35.10 percent of the group. The relative sizes of each department within the company are shown in this chart.

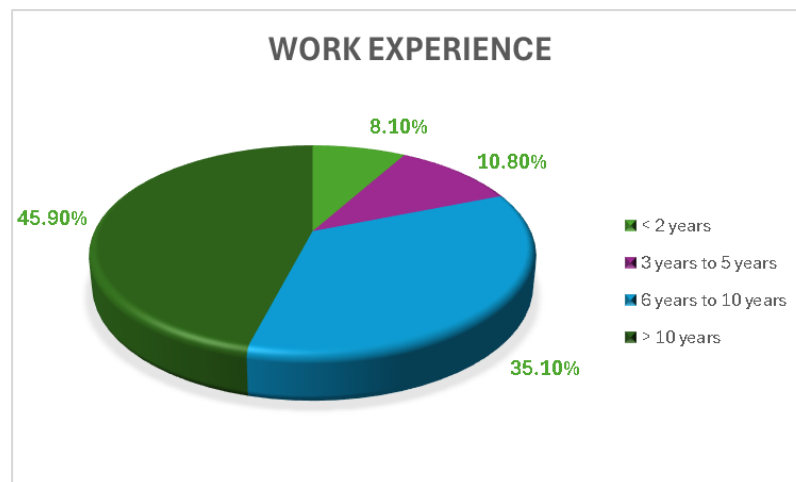


Figure 4.4: Distribution of Work Experience

The last part of background information is the work experience (figure 4.4) of respondent. Most of the respondents in this study had above 6-10 years of experience 15 respondents (35.10%), followed by 11 respondents who have > 10 years of construction experience (45.90%), there are 10.80% respondents of the 3 to 5 years and < 2 years of experience (8.10%).

This section explains the current procedure for processing document materials and products. The project's present methodology is entirely paper based.

By choosing the relevant option, the respondent expresses their level of agreement or disagreement with the following statement. Section B presents the respondent's viewpoint on the way that material product documents are now handled. On a scale of 1 to 6, respondents were asked to indicate how much they agreed with Table 4.4.

The scale of level agreement as below:

- 1 – Strongly Disagrees
- 2 – Disagrees
- 3 – Somewhat Disagree
- 4 – Somewhat Agree
- 5 – Agree
- 6 – Strongly Agree

## Section B

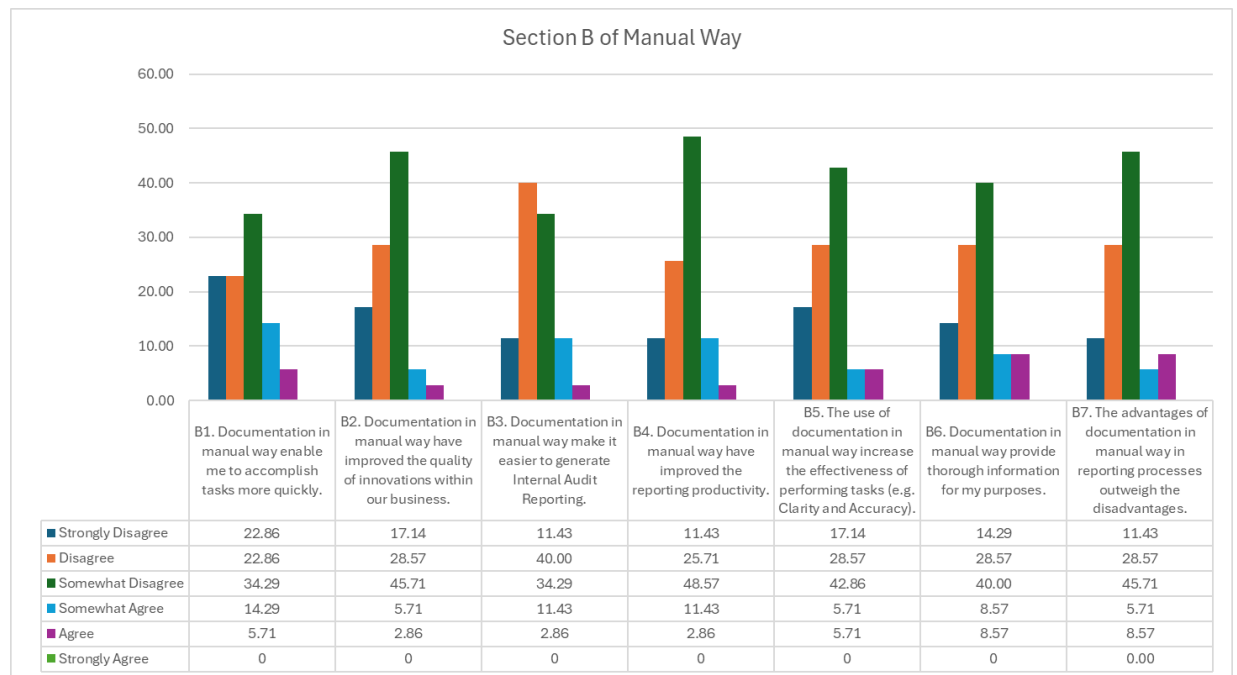


Figure 4.5: The results for section B manual way

Figure 4.5 shows that none of the respondents strongly agreed with any of the claims about the effectiveness of manual documentation. A sizable proportion of respondents disagreed or somewhat disagreed, particularly on statements like "Documentation in manual way enable me to accomplish tasks more quickly" (45.71% somewhat disagreed and 22.86% disagreed) and "Documentation in manual way make it easier to generate Internal Audit Reporting" (34.29% somewhat disagreed and 28.57%

disagreed). In contrast, Figure 4.3 shows that the majority of respondents strongly agreed with the effectiveness of DIIARS, with 72.97% strongly agreeing that DIIARS allows for faster job completion and 64.86% strongly agreeing that DIIARS facilitates internal audit reporting.

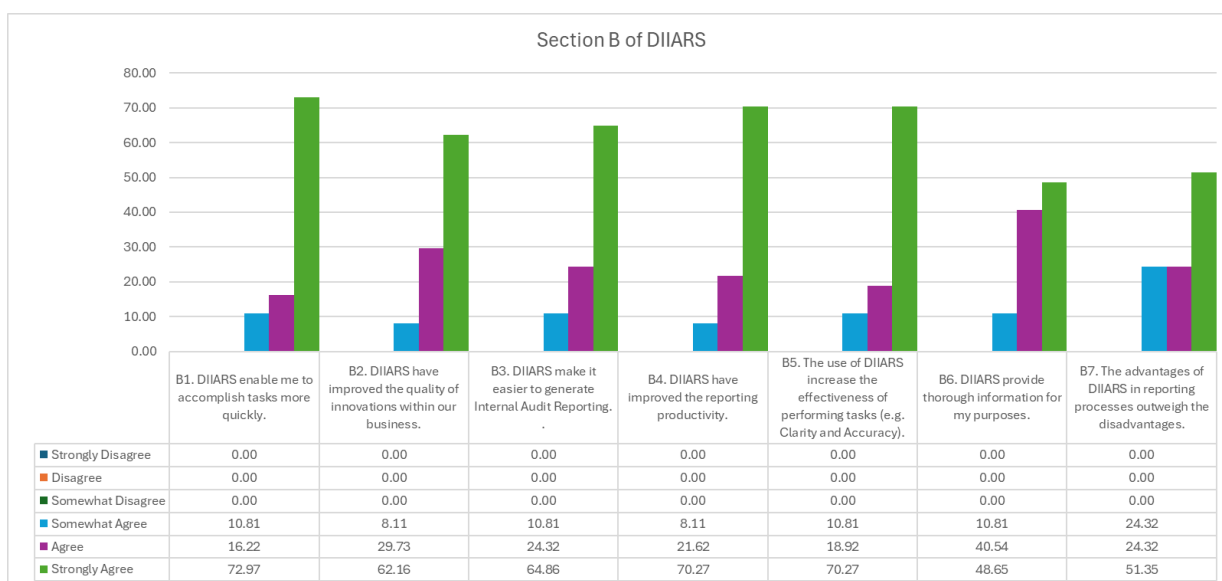


Figure 4.6: The results for section B DIIARS

Figure 4.6 shows, most respondents highly agreed with DIIARS' effectiveness, with 72.97% agreeing that DIIARS allows for faster work completion and 64.86% saying that DIIARS simplifies internal audit reporting.

Figures 4.5 and 4.6 present responses to survey questions regarding documentation methods, with Figure 4.5 focusing on the manual way of documentation and Figure 4.6 examining the DIIARS. A noticeable contrast between the two graphs is the overall respondent agreement. In Figure 4.5, the responses are widely distributed across different levels of agreement and disagreement. In contrast, Figure 4.6 shows a significant skew towards strong agreement, indicating a more favorable perception of DIIARS over manual documentation.

In Figure 4.5, no respondents strongly agreed with any of the statements regarding the effectiveness of manual documentation. A substantial portion of respondents either disagreed or somewhat disagreed, especially for statements like "Documentation in manual way enable me to accomplish tasks more quickly" (45.71% somewhat disagreed and 22.86% disagreed) and "Documentation in manual way make it easier to generate Internal Audit Reporting" (34.29% somewhat disagreed and 28.57% disagreed). Conversely, in Figure 4.6, most respondents

strongly agreed with the effectiveness of DIIARS, with 72.97% strongly agreeing that DIIARS enable quicker task completion and 64.86% strongly agreeing that DIIARS make internal audit reporting easier.

The data suggests a clear preference for DIIARS over manual documentation methods. The higher levels of agreement with positive statements about DIIARS indicate that respondents find digital and automated reporting systems more efficient and beneficial for their purposes. For example, the statements regarding the improvement of reporting productivity and the overall advantages of the documentation process received strong support in Figure 4.6 (70.27% strongly agreeing with both statements), compared to the mixed responses for the same in Figure 4.5. This contrast highlights the need for innovation in documentation processes, suggesting that adopting digital solutions like DIIARS could significantly enhance efficiency and accuracy in data management and reporting.

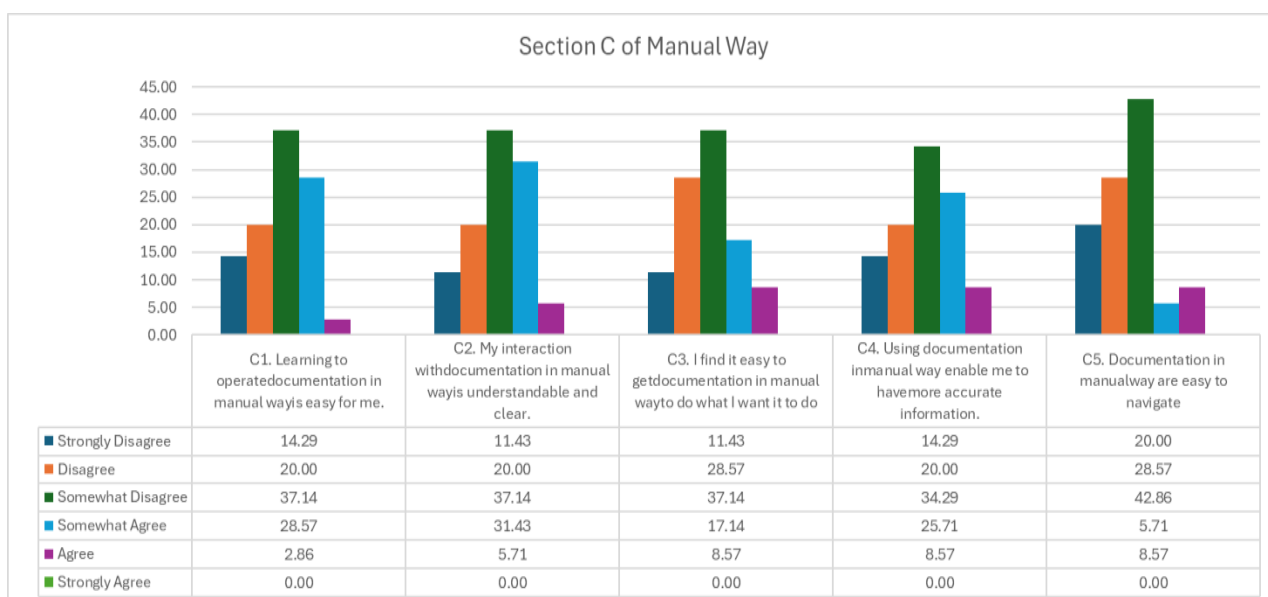


Figure 4.7: The result for Section C Manual Way

Figure 4.7 shows no responders strongly agreed with any of the assertions about the manual method of documentation. A sizable proportion of respondents disagreed or somewhat disagreed, particularly with statements like "Documentation in manual way enable me to accomplish tasks more quickly" (37.14% somewhat disagreed and 20.00% disagreed) and "Documentation in manual way are easy to navigate" (42.86% somewhat disagreed and 28.57% disagreed). In contrast, Figure 4.8 shows that most respondents strongly agreed with the effectiveness of DIIARS, with

68.57% strongly agreeing that learning to use DIIARS is simple and 80.00% strongly agreeing that DIIARS are straightforward to traverse.

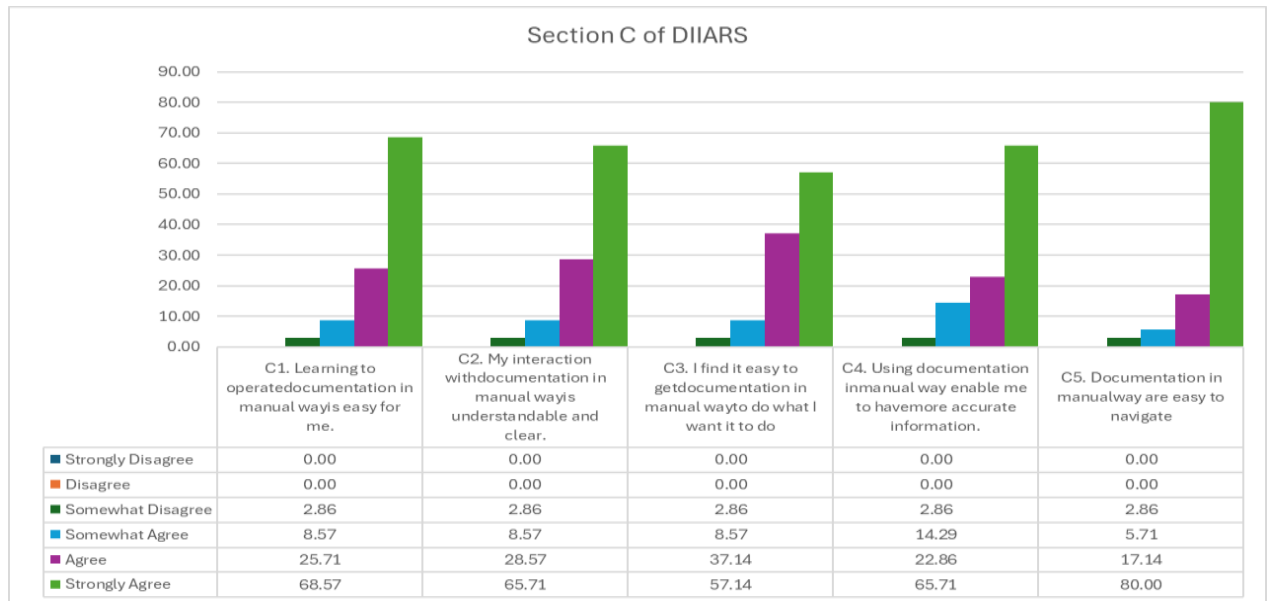


Figure 4.8: The result for Section DIIARS

Figures 4.7 and 4.8 compare responses to survey questions regarding the ease of use and clarity of documentation methods, with Figure 4.7 focusing on the manual way of documentation and Figure 4.8 on DIIARS. A striking contrast between the two graphs is the overall respondent agreement. In Figure 4.7, the responses are widely distributed across different levels of agreement and disagreement. In contrast, Figure 4.8 shows a significant skew towards strong agreement, indicating a more favorable perception of DIIARS over manual documentation.

In Figure 4.7, no respondents strongly agreed with any of the statements regarding the manual way of documentation. A substantial portion of respondents either disagreed or somewhat disagreed, especially for statements like "Documentation in manual way enable me to accomplish tasks more quickly" (37.14% somewhat disagreed and 20.00% disagreed) and "Documentation in manual way are easy to navigate" (42.86% somewhat disagreed and 28.57% disagreed). Conversely, in Figure 4.8, most respondents strongly agreed with the effectiveness of DIIARS, with 68.57% strongly agreeing that learning to operate DIIARS is easy and 80.00% strongly agreeing that DIIARS are easy to navigate.

The data suggests a clear preference for DIIARS over manual documentation methods. The higher levels of agreement with positive statements about DIIARS



indicate that respondents find digital and automated reporting systems more user-friendly and effective. For example, the statements regarding the ease of learning and interaction with the system received strong support in Figure 4.7 (65.71% strongly agreeing with both statements), compared to the mixed responses for the same in Figure 4.7. This contrast highlights the need for innovation in documentation processes, suggesting that adopting digital solutions like DIIARS could significantly enhance ease of use, clarity, and accuracy in data management and reporting.

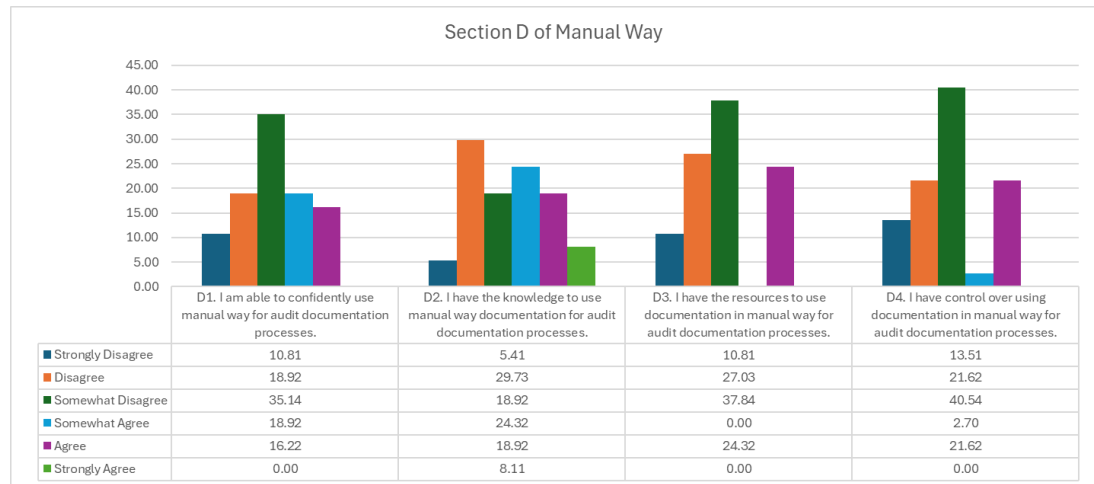


Figure 4.9: The results for Section D Manual Way

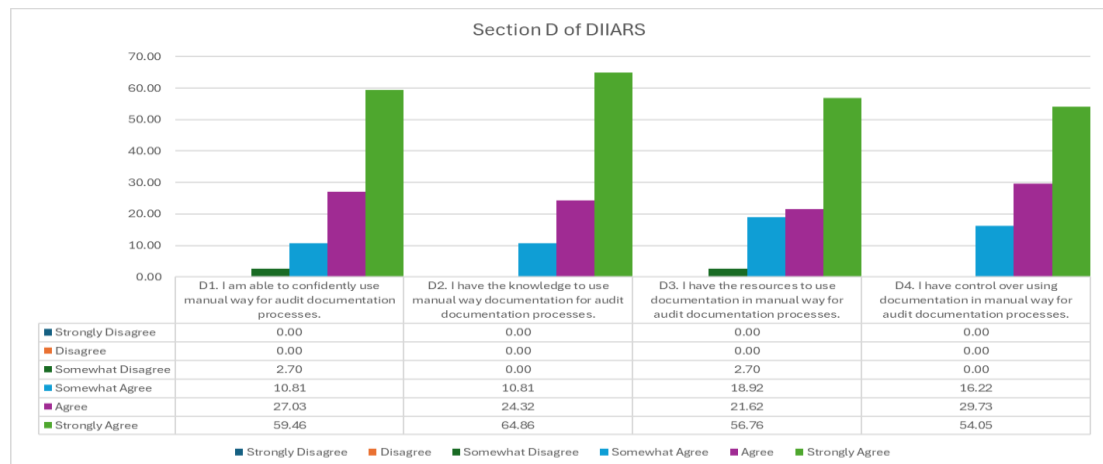


Figure 4.10: The results for Section D DIIARS

Figures 4.9 and 4.10 present survey responses about the confidence, knowledge, resources, and control in using documentation methods for audit processes, with Figure 4.9 focusing on the manual way and Figure 4.10 on DIIARS. A clear contrast between the two graphs is the overall level of agreement. In Figure 4.9, responses are more varied across different levels of agreement and disagreement, whereas Figure 4.7

shows a significant skew towards strong agreement, indicating a more favorable perception of DIIARS.

In Figure 4.9, no respondents strongly agreed with any of the statements regarding the manual way of documentation. A substantial portion of respondents either disagreed or somewhat disagreed, especially for statements like "I have control over using documentation in manual way for audit documentation processes" (40.54% somewhat disagreed and 21.62% disagreed) and "I have the resources to use documentation in manual way for audit documentation processes" (37.84% somewhat disagreed and 27.03% disagreed). Conversely, in Figure 4.10, most respondents strongly agreed with the effectiveness of DIIARS, with 59.46% strongly agreeing that they can confidently use DIIARS for audit documentation processes and 64.86% strongly agreeing that they have the knowledge to use DIIARS.

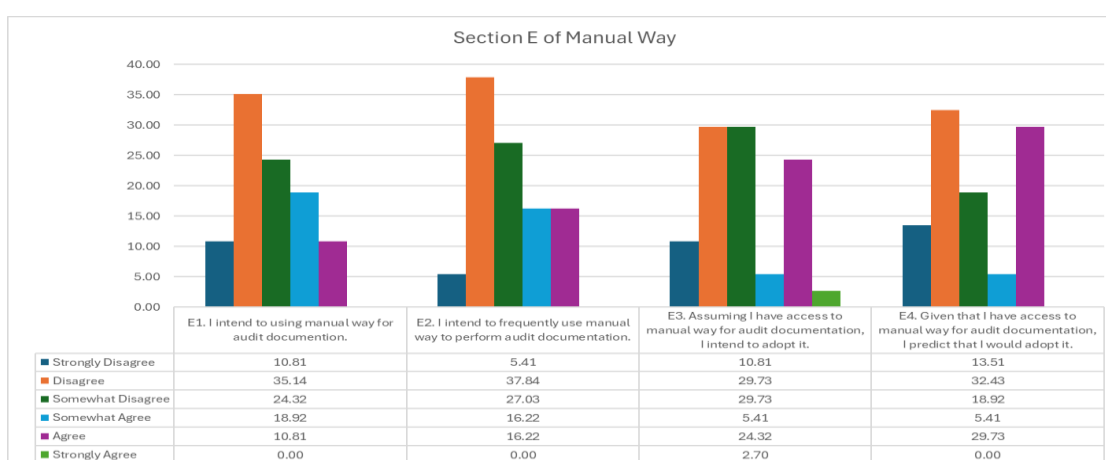


Figure 4.11: The result for Section E Manual Way

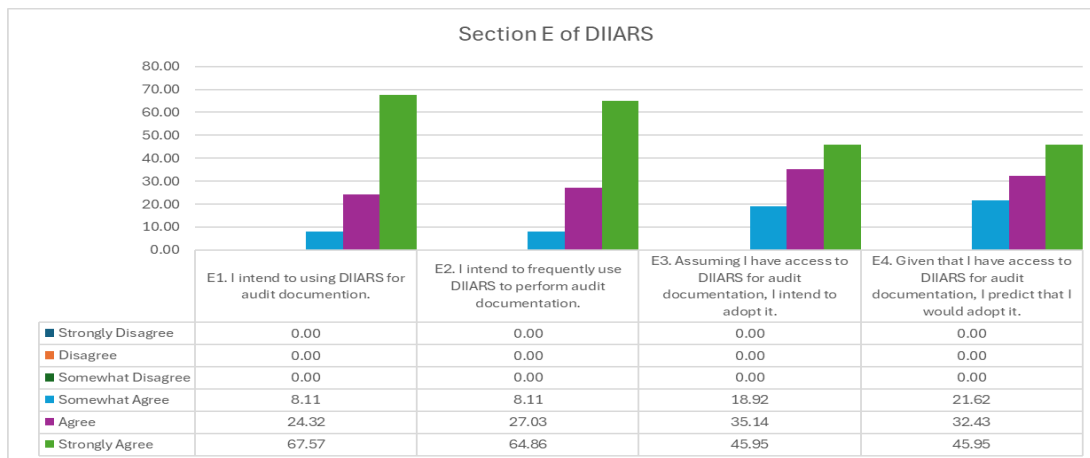


Figure 4.12: The result for Section E DIIARS

Figures 4.11 and 4.12 present survey responses about the intent to use and adopt documentation methods for audit purposes, with Figure 4.12 focusing on the manual way and Figure 4.11 on DIIARS. A significant contrast between the two graphs is evident in the overall level of agreement. In Figure 4.12, responses are more varied

across different levels of agreement and disagreement, whereas Figure 4.12 shows a substantial skew towards strong agreement, indicating a more favorable perception of DIIARS.

In Figure 4.11, a substantial portion of respondents either disagreed or somewhat disagreed with statements regarding the use of manual documentation for audits. For instance, 35.14% disagreed and 24.32% somewhat disagreed with the statement "I intend to use manual way for audit documentation," and similar trends are observed across other statements. In contrast, Figure 4.12 shows that most respondents strongly agreed with using DIIARS for audit documentation, with 67.57% strongly agreeing to use DIIARS for audit documentation and 64.86% strongly agreeing to frequently use DIIARS for audit documentation.

The data suggests a clear preference for DIIARS over manual documentation methods for audit purposes. The higher levels of strong agreement with positive statements about DIIARS indicate that respondents find digital and automated reporting systems more suitable and effective for audit documentation. For example, the statements about the intent to adopt DIIARS received strong support in Figure 4.12, with 45.95% strongly agreeing that they would adopt DIIARS given access, compared to mixed responses for similar statements in Figure 4.11. This contrast

highlights the need for innovation in documentation processes, suggesting that adopting digital solutions like DIIARS could significantly enhance user intent to utilize and adopt these systems for audit purposes.

Table 4.1: The result of Cronbach's Alpha

<b>N of item</b>	<b>Cronbach's Alpha</b>	<b>Interpretation</b>
20	0.952	Excellent

Table 4.1 shows the results of a reliability analysis performed on a set of 20 items using Cronbach's Alpha, which generated a value of 0.952. This rating is in the "Excellent" category, indicating excellent internal consistency among the items. According to George and Mallery (2003) in table 4.2 shows, a Cronbach's Alpha value greater than 0.9 indicates excellent reliability, which means the items are highly correlated and effectively assess the same underlying construct. This strong alpha value verifies the instrument's dependability in this study, indicating that the items consistently capture the desired dimensions of the construct being investigated. As a result, the instrument's high reliability increases the credibility of the study's findings, bolstering their validity and assuring that the findings can be reliably applied in future research with similar groups.

Table 4.2 Cronbach Alpha Interpretation Scale (George, D., & Mallery, P. 2003).

<b>Cronbach's Alpha</b>	<b>Interpretation</b>
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha > 0.8$	Good
$0.8 > \alpha > 0.7$	Acceptable
$0.7 > \alpha > 0.6$	Questionable
$0.6 > \alpha > 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 4.3 presents the Cronbach's Alpha values for various constructs measured in a study, along with the number of items used to assess each construct. Cronbach's Alpha is a measure of internal consistency. The perceived usefulness (PU) construct has a Cronbach's Alpha of 0.863 and includes 7 components. An alpha value greater than 0.7 is generally considered acceptable, and values greater than 0.8 are considered good. As a result, the dependability of the items evaluating perceived utility is high, demonstrating consistent responses across questions. The perceived ease of use (PEU) construct has a Cronbach's Alpha of 0.948 and consists of 5 components. This very high alpha score suggests great internal consistency, implying that the items used to assess perceived ease of use are strongly associated and dependable. The Perceived Behavior Control (PBC) construct has the highest Cronbach's Alpha score of 0.9534 with four items. This suggests excellent internal consistency, implying that the items used to assess perceived behavioral control are extremely dependable. And last The Behavior Intention (BI) construct has a Cronbach's Alpha of 0.900 for 4 items. This high alpha value, like the other constructs, indicates great internal consistency, suggesting that the items used to measure behavioral intention are extremely consistent and trustworthy. In summary, all constructs in the study exhibit high reliability based on their Cronbach's Alpha values, with each construct scoring well above the acceptable threshold of 0.7. This suggests that the items used in the survey are well-designed and provide consistent measurements for each respective construct.

Table 4.3: The result of Cronbach's Alpha

Concept	Cronbach's Alpha	N of item
Perceived Usefulness (PU)	0.863	7
Perceived Ease of Use (PEU)	0.948	5
Perceived Behavior Control (PBC)	0.9534	4
Behavior Intention (BI)	0.900	4

The summary of the descriptive statistics for pre and post development of the DIIARS is in figure 4.13 and figure 4.14. Figure 4.13 shows a significant difference in perceived efficacy between the manual method and the DIIARS. Respondents overwhelmingly believe DIIARS is more effective, as indicated by the large number of respondents who agree with its usefulness. In contrast, the manual technique is widely seen as ineffectual, with a major percentage of respondents opposing or slightly disapproving of its efficacy. The clear preference for DIIARS in terms of perceived utility demonstrates its greater effectiveness in addressing users' needs, streamlining operations, and increasing overall efficiency when compared to the previous manual method. Figure 4.14 shows the summary of Section B (PU) a significant difference in perceived utility between the manual method and DIIARS. In contrast, most respondents agreed on the usefulness of DIIARS, with no dispute noted. This overwhelming positive response to DIIARS demonstrates its perceived higher effectiveness when compared to the manual method. The high degree of agreement demonstrates DIIARS' potential to increase productivity, accuracy, and efficiency, making it a considerably more effective auditing option than previous manual techniques.

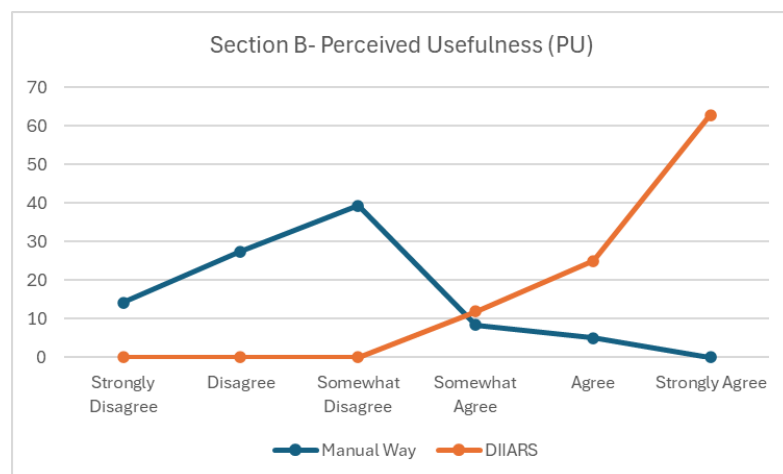


Figure 4.13: Section B graph of respondent

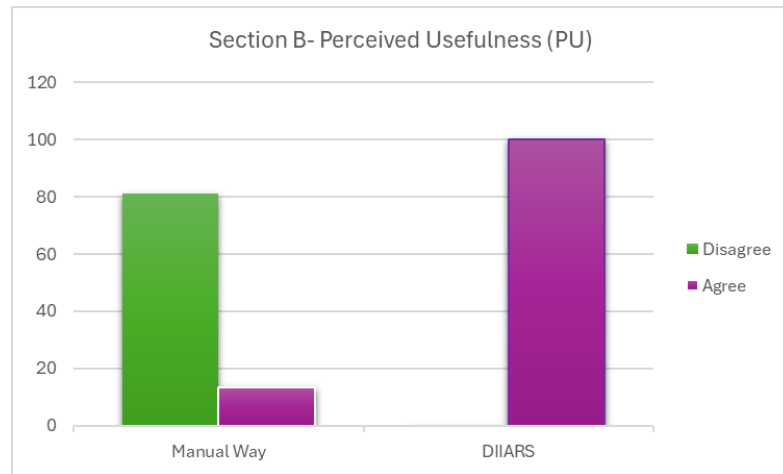


Figure 4.14: The summary of PU

From figure above illustrates respondent feedback concerning issues associated with the manual way audit in digitizing internal audit documentation for audit management. Most respondents, constituting more than 50%, indicated agreement at scale 3 and above.

Iterate on the system prototype based on user testing input and insights, implement the necessary changes, improvements, or refinements to address reported concerns or improve user experience.

To evaluate the effectiveness of DIIARS in the project, a paired sample two tailed test was performed (table4.4). Results as shown in Table 4.12, respondent preferred using DIIARS (Mean PU = 5.50, PEU = 5.50, PBC = 5.42 BI = 5.42) compare with paper-based method (Mean PU= 2.67, PEU =2.84, PBC =3.09, BI = 2.97). A paired sample t-test found this all variable is <.001 Together this suggests that using DIIARS was much easier and resourceful compared with paper-based method. This means that DIIARS was more effective compared with the paper-based method.

Table 4.4: Paired samples for dimension of DIIARS-Paper Based

Paired Different		
Pair	Mean	Significant (two tailed)
Perceived Usefulness (PU)	5.50	<.001
Perceived Ease of Use (PEU)	5.50	<.001
Perceived Behavior Control (PBC)	5.42	<.001
Behavior Intention (BI)	5.42	<.001

### 4.3 CONCLUSION

In conclusion, the digitalization of the internal ISO audit reporting system is an innovation for OSK Group that addresses the inherent constraints of manual audit processes. This entire digital improvement is a huge step forward, providing a technologically advanced platform for firms to streamline and improve internal auditing. This effort promises enhanced efficiency, accuracy, and accessibility in audit reporting by shifting from paper- based to electronic processes.

The deployment of this digital system has several advantages. It allows for real-time data access, allowing for faster analysis and decision-making. Furthermore, the improved precision of the technology decreases the possibility of errors inherent in manual procedures, resulting in more dependable audit results. The use of secure digital storage and retrieval procedures provides data integrity and accessibility, promoting transparent audit trails and faster audit team communication.

Finally, the Digitalization of Internal ISO Audit Reporting System signifies a fundamental movement toward audit process efficiency, accuracy, and compliance. Its deployment heralds a new era of better transparency, faster workflows, and increased internal audit effectiveness, allowing firms to adapt and succeed in today's volatile business world.



## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

This section presents a summary of the findings, conclusions, and suggestions derived from the data analysis discussed in the previous chapter. Based on the accomplishment of many study objectives, the efficacy of using the Digitalization of Internal ISO Audit System (DIIARS) to digitize document information on the website at OSK Sdn Bhd was assessed. The improvements suggested in this chapter will maximize system functionality for upcoming internal audit documentation. During the study, scholars deliberated and meticulously developed suggestions. The DIIARS serves as a digital document repository that contains information on the types and documentation of the company. It greatly reduces staff downtime and storage by streamlining and storing every documentation. The website also functions as a site journal, providing up-to-date information organized by type of documentation. Notably, DIIARS is affordable and easy to use, minimizing paper usage and providing universal accessibility through mobile and computer devices. User comments and data findings highlight how much better DIIARS is than conventional paper-based management techniques. Additionally, DIIARS supports employee training in the implementation of sophisticated technologies in line with the technologies Innovation Revolution 4.0 (IR 4.0) in the Construction sector.

#### **5.2 DISCUSSION**

The findings indicated that users overwhelmingly found the DIIARS system to be more effective than the existing method. Currently, the site relies heavily on paper for reference and submission, leading to excessive paper usage. Over 100% (Figure 4.10) of respondents agreed that the current method is cumbersome and hinders task completion. Addressing this issue, the DIIARS website offers user-friendly online

access to information, saving time and costs for employees. Half of the surveyed employees expressed agreement with implementing this system in their projects.

To assess its effectiveness, a paired t-test conducted by Social Science Statistics online website was employed. The results revealed a Cronbach Alpha 0.952. This demonstrates that DIIARS is significantly more effective compared to the current approach. Therefore, this product is highly recommended for use in selecting construction site materials. Table 4.3 shows every concept of questionnaire (PU), (PEU), (PBC) and (BI) result Cronbach Alpha in good and excellent interpretation.

### **5.3 CONCLUSION**

The project's conclusion indicates that there are significant challenges in handling the audit documentation. Respondents unanimously acknowledged that internal audit issues directly impacted their work. The DIIARS website, proposed for use at the OSK Sdn Bhd for 3 departments which are OSK Construction (OSKC), OSK Property (OSKP) and Quality, Health, Safety, and Environment (QSHE) garnered positive feedback for its user-friendly interface in managing, referencing and storing the internal audit documentation. The project's objective has been successfully achieved. The specific aims were to identify product details for construction materials, accomplished through catalog and document analysis. Furthermore, the Digitalization of Internal ISO Audit Reporting System (DIIARS) was established utilizing Google Sites, recognized for its accessibility and zero-cost implementation. The effectiveness of DIIARS was subsequently assessed via a paired t-test administered by Social Science Statistics as part of the internal audit documentation.

### **5.4 RECOMMENDATION**

To enable the successful adoption of DIIARS, there's a recommendation for this project. To improve the DIIARS project, more detailed documentation for internal audits is required. By integrating more precise information, the system can give a stronger and more comprehensive audit trail, which improves accountability and transparency. This will guarantee that all components of the audit process are thoroughly documented and easily available for future reference. This feature will allow researcher to gain useful insights from audit data, identify patterns, and make

more educated decisions. It will not only increase the overall efficiency of the internal audit process but will also provide useful information for continuous improvement and strategic planning within the firm.

DIIARS prefers Google Drive for storage because of its large storage capacity, real-time collaboration tools, and excellent security measures. It provides quick access from any device, enabling remote work and seamless integration with Google Workspace products. This assures efficient workflows, data privacy, and increased productivity.

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## APPENDIX 1

### Questionnaire for a manual way

7/1/24, 1:43 PM

A study on Manual Way (paper based) of ISO Internal Audit Reporting

## A study on Manual Way (paper based) of ISO Internal Audit Reporting

Assalamualaikum and Greetings,

Dear respected respondent / OSKers,

You are invited to take part in this survey which aim to find answers about audit reporting in manual way (paper based) for my final year project. The information obtained from this survey would be utilized for research purpose only and this document would not be misused.

This questionnaire consists of five (5) sections, namely:

Section A: Demographic Profile

Section B: Perceived Usefulness (PU)

Section C: Perceived Ease of Use (PEU)

Section D: Perceived Behavior Control (PBC)

Section E: Behavior Intention (BI)

I humbly request you to answer the survey as voluntarily and honestly as possible. Thank you for spending your time to provide answers to the survey.

**Nur Najihah binti Mohamad Khairuddin**

Student of Bachelor in Civil Engineering Technology with Honours

OSKC Internship

01153541219 / najihah1811khai@gmail.com

(FYP Supervisor: Pn Mazziyatol Farizza bt Mat)

(OSK Supervisor: Mohamad Afiq bin Mohamad Juhari)

---

\* Indicates required question

### Section A: Demographic Profile

#### 1. A1. Gender \*

*Mark only one oval.*

☐ Male

☐ Female

## 2. A2. Age \*

*Mark only one oval.*☐ 18-20 years☐ 21-24 years☐ 25+ years

## 3. A3. OSK Department \*

*Mark only one oval.*☐ OSKC☐ OSKP☐ QSHE

## 4. A4. Work Experience \*

*Mark only one oval.*☐ < 2 years☐ 3 years to 5 years☐ 6 years to 10 years☐ > 10 years**Section B**

Technology Acceptance Model  
Perceived Usefulness (PU)

5. Please answer the following questions based on your experience. For each statement \* below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree.

*Check all that apply.*

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>B1.</b> Documentation in manual way enable me to accomplish tasks more quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B2.</b> Documentation in manual way have improved the quality of innovations within our business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B3.</b> Documentation in manual way make it easier to generate Internal Audit Reporting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B4.</b> Documentation in manual way have improved the reporting productivity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B5.</b> The use of documentation in manual way increase the effectiveness of performing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

tasks (e.g.  
Clarity and  
Accuracy).

---

B6. Documentation  
in a manual way  
provides  
thorough  
information for my  
purposes.

☐☐☐☐☐☐

B7. The  
advantages of  
documentation in  
manual ways in  
reporting  
processes  
outweigh the  
disadvantages.

☐☐☐☐☐☐

---

## Section C

### Technology Acceptance Model

Perceived Ease of Use (PEU)

6. Please answer the following questions based on your experience. For each statement <sup>\*</sup> below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree.

*Check all that apply.*

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>C1. Learning to operate documentation in manual way is easy for me.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C2. My interaction with documentation in manual way is understandable and clear.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C3. I find it easy to get documentation in manual way to do what I want it to do.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C4. Using documentation in manual way enable me to have more accurate information.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C5. Documentation in manual way are easy to navigate.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Please answer the following questions based on your experience. For each statement below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree. \*

*Check all that apply.*

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>D1. I am able to confidently use manual way for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D2. I have the knowledge to use manual way documentation for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D3. I have the resources to use documentation in manual way for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D4. I have control over using documentation in manual way for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Section E

## Technology Acceptance Model

## Behavior Intention (BI)

8. Please answer the following questions based on your experience. For each statement <sup>\*</sup> below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree.

*Check all that apply.*

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>E1. I intend to using manual way for audit documentation.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>E2. I intend to frequently use manual way to perform audit documentation.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>E3. Assuming I have access to manual way for audit documentation, I intend to adopt it.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>E4. Given that I have access to manual way for audit documentation, I predict that I would adopt it.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## APPENDIX 2

### Questionnaire for DIIARS

7/1/24, 1:42 PM

A study on Digitalization ISO Internal Audit Reporting System (DIIARS)

## A study on Digitalization ISO Internal Audit Reporting System (DIIARS)

Assalamualaikum and Greetings,

Dear respected respondent / OSKers,

You are invited to take part in this survey which aim to find answers about DIIARS for my final year project. The information obtained from this survey would be utilized for research purpose only and this document would not be misused.

This questionnaire consists of five (5) sections, namely:

Section A: Demographic Profile

Section B: Perceived Usefulness (PU)

Section C: Perceived Ease of Use (PEU)

Section D: Perceived Behavior Control (PBC)

Section E: Behavior Intention (BI)

I humbly request you to answer the survey as voluntarily and honestly as possible. Thank you for spending your time to provide answers to the survey.

Nur Najihah binti Mohamad Khairuddin

Student of Bachelor in Civil Engineering Technology with Honours

OSKC Internship

01153541219 / najihah1811khai@gmail.com

(FYP Supervisor: Pn Mazziyatol Farizza bt Mat)

(OSK Supervisor: Mohamad Afiq bin Mohamad Juhari)

---

\* Indicates required question

### Section A: Demographic Profile

#### 1. A1. Gender \*

*Mark only one oval.*

☐ Male

☐ Female

## 2. A2. Age \*

*Mark only one oval.*

- ☐ 18-20 years
- ☐ 21-24 years
- ☐ 25+ years

## 3. A3. OSK Department \*

*Mark only one oval.*

- ☐ OSKC
- ☐ OSKP
- ☐ QSHE

## 4. A4. Work Experience \*

*Mark only one oval.*

- ☐ < 2 years
- ☐ 3 years to 5 years
- ☐ 6 years to 10 years
- ☐ > 10 years

**Section B**

Technology Acceptance Model  
Perceived Usefulness (PU)

5. Please answer the following questions based on your experience. For each statement below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree. \*

Check all that apply.

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>B1. DIIARS enable me to accomplish tasks more quickly.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B2. DIIARS have improved the quality of innovations within our business.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B3. DIIARS make it easier to generate Internal Audit Reporting. .</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B4. DIIARS have improved the reporting productivity.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B5. The use of DIIARS increase the effectiveness of performing tasks (e.g. Clarity and Accuracy).</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B6. DIIARS provide thorough information for my purposes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please answer the following questions based on your experience. For each statement <sup>\*</sup> below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree.

*Check all that apply.*

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>C1. Learning to operate DIIARS is easy for me.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C2. My interaction with DIIARS is understandable and clear.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C3. I find it easy to get DIIARS to do what I want it to do.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C4. Using DIIARS enable me to have more accurate information.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C5. DIIARS are easy to navigate.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Section D

Technology Acceptance Model  
Perceived Behavior Control (PBC)

7. Please answer the following questions based on your experience. For each statement below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree. \*

*Check all that apply.*

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
<b>D1. I am able to confidently use DIIARS for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D2. I have the knowledge to use DIIARS for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D3. I have the resources to use DIIARS for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>D4. I have control over using DIIARS for audit documentation processes.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Section E

Technology Acceptance Model  
Behavior Intention (BI)

8. Please answer the following questions based on your experience. For each statement \* below, indicate whether you agree or disagree with it on a scale of 1-6, with 1 being strongly disagree and 6 strongly agree.

Mark only one oval per row.

	1 (Strongly Disagree)	2 (Disagree)	3 (somewhat disagree)	4 (somewhat agree)	5 (Agree)	6 (Strongly Agree)
E1. I intend to using DIIARS for audit documentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E2. I intend to frequently use DIIARS to perform audit documentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E3. Assuming I have access to DIIARS for audit documentation, I intend to adopt it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E4. Given that I have access to DIIARS for audit documentation, I predict that I would adopt it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Google Forms


## APPENDIX 3

### QSHE audit documentation

CONSTRUCTION		AUDIT NOTES		Date: 31/05/2023 Page: 1 of 1																												
Project/ Department: <b>Human Resource - General</b>		Auditor: <b>Noorazlin</b>																														
Item (Audit Checklist)	Description (Sampling Information: Eg: Document title, Ref. no, date, signature by, non-conformance note & etc)	Comply (V) Not Comply (X)	# (Sample No.)																													
<b>1.0</b>	<b>CONTROL OF DOCUMENTS AND RECORDS (HQ) /(HQ/SITE)</b>																															
	<u>Filing index &amp; label</u>																															
	- HR currently practicing e-filing (all documents and records is kept in system)	V																														
	<u>Incoming correspondence</u>																															
	- Incoming correspondence received via email and save in server.	V																														
	<u>Incoming correspondence Log</u>																															
	- Not applicable	N/A																														
	<u>Outgoing correspondence log</u>																															
	- Outgoing correspondences log maintained in excel.																															
	- Documents & records is Private & Confidential (P&C).	V																														
	<u>Archiving of Records</u>																															
	Records Retention List	V																														
	- Referred to OSKP/QMS/02-A1 (Rev. 8) dated 29/3/2023																															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">HUMAN RESOURCE</th> <th style="text-align: center;">Description</th> <th style="text-align: center;">Retention</th> <th style="text-align: center;">Storage</th> </tr> </thead> <tbody> <tr> <td></td> <td>PERSONAL FILE</td> <td>7 years back from current year</td> <td>Hardcopy/ Softcopy</td> </tr> <tr> <td></td> <td>TRAINING DOCUMENT (INCLUDE TRAINING REQUEST FORM, TRAINING EVALUATION FORM &amp; INDIVIDUAL DEVELOPMENT PLAN)</td> <td>3 years back from current year</td> <td>ESS System</td> </tr> <tr> <td></td> <td>GENERAL CORRESPONDENCE</td> <td>3 years back from current year</td> <td>Hardcopy/ Softcopy</td> </tr> </tbody> </table>	HUMAN RESOURCE	Description	Retention	Storage		PERSONAL FILE	7 years back from current year	Hardcopy/ Softcopy		TRAINING DOCUMENT (INCLUDE TRAINING REQUEST FORM, TRAINING EVALUATION FORM & INDIVIDUAL DEVELOPMENT PLAN)	3 years back from current year	ESS System		GENERAL CORRESPONDENCE	3 years back from current year	Hardcopy/ Softcopy															
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<b>2.1</b>	<b>Risk Register (Please state risk register number)</b>	V																														
	- HR risk managed by Group Risk Management																															
	- OSKC risk profile no. OSKC06 and OSKC06A																															
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Notes:  
Not Comply Sample No - #1, #2 so on..(Photocopy of evidence / sample)

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	QSHE DEPARTMENT	Doc. No.: OSKC/QSHE/02-F4 Rev. No.: 1
	AUDIT NOTES	Date: 31/05/2023 Page: 1 of 1

Project/  
Department: Human Resource - General

Auditor: Noorazlin

Item (Audit Checklist)	Description (Sampling Information: Eg: Document title, Ref. no, date, signature by, non-conformance note & etc)	Comply (V) Not Comply (X)	# (Sample No.)																										
2.2	Check the effectiveness of implementation plan/risk action plan																												
	- Risk Parameter	V																											
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	- Rating: Medium																												
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Notes:  
Not Comply Sample No - #1, #2 so on..(Photocopy of evidence / sample)

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Project/  
Department: Human Resource - Training

Auditor: Noorazlin

[illegible]

Notes:  
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