

**THE ATTITUDES OF PEOPLE AFTER THE USE OF TECHNOLOGY IN  
SECURITY CHECKS AT TOTAL ENERGIES E & P NWOYA DISTRICT**

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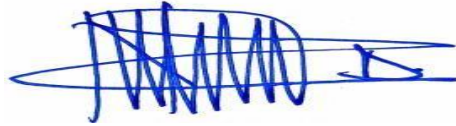
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## DECLARATION

I, **DANIEL NAMANYA**, declare that, this research is my original work and has never been submitted to any other University or Institution for any Academic award.

Signature



**DANIEL NAMANYA**

Date

15 SEPTEMBER 2024

**APPROVAL**

This is to certify that this dissertation has been submitted for examination with our approval as supervisor;

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..........

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Date:

18<sup>th</sup> September 2024.

## **DEDICATION**

I dedicated this work to my beloved son Jason and mother Esther who have been my source of inspiration, guided and gave me strength, when I thought of giving up, who continually provided their moral, spiritual, emotional and financial support.

Also, to my brothers and sisters whose tireless efforts and love enabled me to go through my Education.

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Lastly, I dedicate this research to all Mighty God that guided me, gave me strength, power of mind, protection and skills. All of this, I offer to you.

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## ABSTRACT

*The study examined the attitudes people form (affective, behavioral and cognitive) after going through screening at check points at Total Energies E & P Nwoya district, since screenings evokes different emotions in different people, depending on context and a variety of other factors. It was guided by three research objectives which were to measure and analyze the affective attitudes formed by individuals after undergoing security screening through self-report measures, to measure and analyze the behavioral attitudes developed by individuals as a result of security screening through self-report measures and to measure and analyze cognitive attitudes formed by individuals after undergoing security screening through self-report measures. The study utilized a mixed methods research design, in which with both quantitative and qualitative approaches were employed. The study population included top managers, staff members and visitors (N=127). Data was collected using questionnaire and an interview guide. Data collected was analyzed using SPSS to obtain frequencies, percentages, means and correlations and regressions. Interviews revealed that people experience both negative and positive emotions after a screening exercise. They further revealed that some of the respondents understood the importance of screening, and thus were compliant behaviors during the screening. Regression results showed that screening resulted in affective, behavioral and cognitive attitudes, since regression coefficients were moderately high and significant. It was therefore recommended that adopt a targeted and comprehensive communication strategy to improve awareness on security screening, enhance public awareness campaigns and emphasize consistent adherence to established protocols.*

## CHAPTER ONE

### GENERAL INTRODUCTION TO THE STUDY

#### 1.0 Background to the study

The weakest point in any security mechanism is frequently the human being in the loop at major oil and gas installations. Oil and gas installations are always prone to attacks that because of their vulnerability and sensitive nature (Lorrie et al, 2008). Designing screening procedures and security checkpoints that are both easy to use and difficult to penetrate on such vital installations necessitates knowledge of societal attitudes concerning security technologies and other perspectives like the behaviors. The way people approach security installations at checkpoints determines how much panic they experience, which typically causes those screening to become suspicious. This has a significant impact on the effectiveness of screening (Egelman et al, 2015).

People's attitudes of security facilities for screening can be impacted by passive involvement, ignorance, and insufficient attention, which makes an organization more susceptible to security issues (Sasse et al, 2005). The secret to successfully managing a company's screening process may lie in a deeper understanding of human attitudes regarding security screening procedures (Claycomb et al, 2012). In the end, a person's behavior is determined by the way they think about things. Employees' attitudes toward certain job activities, goods or services, coworkers, management, or the organization in general might be favorable or bad at work. A mental set of attitudes shapes how we perceive other things (Kroesen et al, 2017). It affects how we see and evaluate our working environment, the nature of their employees' attitudes toward their jobs, toward their careers, and toward the organization as a whole is of significant concern to managers of organizational behavior. Employee job attitudes are crucial for achieving both personal and organizational goals through performance (McGuire, 2014).

As a result, attitudes are an arrangement of ideas, emotions, and behavioral dispositions toward things, people, groups, events, or symbols that have social significance (Hogg Et al, 2005). According to the dominant theory, attitudes are made up of three different parts: cognitive (knowledge and beliefs), affective (feelings and emotions), and behavioral (acting and behaving). Research findings clearly show how attitudes and behavior are interrelated (Veresova et al,

2016). Consequently, mixes of affect and cognition (what one thinks about the attitude object). For instance, cognitive assessments may be used to jointly determine a person's attitude toward a coworker. Conflating attitudes and conduct are dangerous (Judge Et al, 2001).

Cognitive attitudes encompass an individual's knowledge and beliefs, shaping their perception of the world and influencing their decision-making processes. Knowledge, in this context, refers to the information and facts a person possesses about various subjects (Petty & Briñol, 2015). It encompasses both explicit knowledge, which can be articulated and consciously accessed, and tacit knowledge, which is more implicit and often acquired through experience. Beliefs, on the other hand, are the convictions and convictions individuals hold about the truth or validity of certain propositions (Cacioppo, Harkins & Petty, 2014). These beliefs can be based on personal experiences, cultural influences, or the information they have acquired over time. Cognitive attitudes play a crucial role in how people interpret and make sense of their surroundings, forming the foundation for their opinions, values, and behaviors. Cognitive attitudes suggest that individuals strive to maintain consistency between their beliefs and actions, and when faced with conflicting information, they may alter their beliefs to reduce discomfort. Cognitive attitudes are influenced by confirmation bias, where individuals tend to seek and prioritize information that aligns with their existing beliefs, potentially reinforcing pre-existing knowledge and convictions (Pratkanis, 2014).

Behavioral attitudes refer to the actions and behaviors that individuals exhibit based on their attitudes and beliefs. These attitudes are the outward manifestations of an individual's internal thoughts, feelings, and evaluations of specific objects, people, or situations (Terlau & Hirsch, 2015). In other words, behavioral attitudes reflect how one acts or behaves in response to their cognitive (knowledge and beliefs) and affective (feelings and emotions) attitudes. Conversely, if an individual holds negative cognitive and affective attitudes towards a particular type of aspect, their behavioral attitude may involve avoiding that aspect altogether (Juvan & Dolnicar, 2014). Behavioral attitudes are often the most visible and tangible expressions of one's attitudes, and they can have a significant impact on various aspects of life, including health, relationships, and professional success. Understanding and managing one's behavioral attitudes is crucial for aligning actions with personal values and goals and for fostering positive change in behavior when necessary.

Affective attitudes encompass an individual's feelings and emotions towards particular objects, people, ideas, or situations. These attitudes are rooted in our emotional responses and can range from positive emotions like love, happiness, and affection to negative ones such as fear, anger, and disgust (Conner, van Harreveld & Norman, 2022). Affective attitudes often play a significant role in shaping our overall judgments and behaviors, as our emotional responses can strongly influence our decision-making processes. These attitudes are highly subjective and can be influenced by a variety of factors, including personal experiences, cultural norms, and social influences (Zanger, Meibner & Rauschnabel, 2022). People develop a positive affective attitude towards a particular brand of products because they associate it with happy memories or experiences. Conversely, they may develop a negative affective attitude towards a certain food if they had a bad experience with it in the past (Ryffel & Wirth, 2016). Understanding and managing affective attitudes is important for emotional well-being and interpersonal relationships, as they can impact how we relate to others and make decisions in both personal and professional contexts (Janmaimool & Chontanawat, 2021).

The relationship between cognitive, affective, and behavioral attitudes is often described as the ABC model of attitudes (Tsai & Bagozzi, 2014). These three components are interconnected and collectively shape how individuals perceive, process, and respond to the world around them. Cognitive attitudes represent the knowledge and beliefs someone holds about a particular subject (Ajzen, 2014). These beliefs can influence affective attitudes, as positive or negative feelings and emotions may arise from these cognitive evaluations. For instance, if someone believes that recycling is environmentally responsible (cognitive attitude), they may experience a positive emotional connection to recycling (affective attitude). Affective attitudes, in turn, can influence behavioral attitudes by motivating or discouraging certain actions (Jena, 2020). In the recycling example, a positive emotional connection to recycling may lead to the behavior of actively participating in recycling efforts. The relationship between these attitudes is dynamic, as changes in one component can influence the others (Cacioppo, Harkins & Petty, 2014). For instance, exposure to new information (cognitive) can lead to shifts in emotions (affective) and subsequently affect one's actions (behavioral). Recognizing and understanding this relationship is crucial for individuals and organizations seeking to change attitudes and behaviors in various

contexts, such as marketing, public health campaigns, and social change initiatives (Kroesen et al, 2017).

Any person entering a vital structure is evaluated to see whether they are carrying any unlawful, forbidden, or suspicious objects that could constitute a hazard to the vital structure, workers, and visitors. This procedure is known as effective security screening. Every person entering a venue at any moment should be properly evaluated by screening experts, according to policies and procedures in a secure security screening program. The usage of walk-through metal detectors, hand-held metal detectors, X-ray machines, and other cutting-edge technologies can all be included in security screening systems (Otto, 2021). Even if the person has a valid identification, security screening is always necessary for everyone entering the venue at any time. To ensure the safety of every person at a venue, credentials are a crucial component of the security process and should be utilized in conjunction with screening methods (Chen et al, 2020).

Given the nature of the actions demonstrated, people's opinions toward checkpoints are tied to the type of screening that is applied to them. The tendency of an individual to act in a particular way in response to a situation makes up the behavioral component as a reliable indicator of crime and how to prevent it (Eysenck et al, 2018). Effective screening involves accurately identifying criminal behavioral intent and its surroundings. Numerous studies have supported this theory, demonstrating how people's reactions and behaviors in various contexts are strongly tied to their perceptions of risk (Segal, 2021). As a result, safer attitudes may be better formed to support effective screening at checkpoints (Glasman et al, 2017).

The perception of the risk that a specific place can convey must be associated with attitudes about security and crime prevention (McCormac et al., 2017). When in the presence of environments that could present circumstances that enable the occurrence of harmful acts, not only to some individuals but also to a community or society, independently values that prioritize the interests of the individual, even at the expense of others, may represent a barrier to the advancement of such cognitions (Cane et al. 2008).

In Uganda, the general population still holds negative attitude and perception towards the security checkpoints screening machines. Most people exhibit fear, anxiety and panic when going through such check points. This makes it difficult for the personnel manning these check points to conduct effective screening separating the innocent from the wrong elements accessing premises. Each and every venue security check must be done by trained security personnel despite such challenge. To guarantee a safer environment, this staff is trained to undertake screening of both visitors and products. They must use a variety of strategies to spot potential threats to the safety and welfare of patrons, administration, and other facility workers, including people and objects.

There is a challenge of failure of check points optimizing screening efficiency, longer wait time, fear among people to use screening machines, capability to detect harmful items at passenger checkpoints, inability by people to use the machines when walking through and wrong perceptions that these machines are dangerous for their health. This study therefore used people's attitudes to predict security screening with metal detectors and walk-through machines on vital installation entrances at Total E & P energies Nwoya district.

### **1.1. Statement of the Problem**

Vital installations like Total E & P energies, have endeavored to put in place the necessary structures in terms of security guidelines, equipment, right personnel and systems to ensure effective screening their entrances. The screening practice still face a number of challenges as there are faulty machines, long queues for people waiting to be checked, delay to check people, some people refusing to be checked. According to Total Energies E & P (2020), Vital installations face screening challenges as 40% of people at any given moment do not pass through the screening machine, 30% of people say they don't like the sound of the screening machine, 15% the screening as harmful to their life so prefer to use other forms of checking, many people look for all ways of dodging the screening all walking through the metal detectors.

It is possible that some of the people who walk through these security points have done so on several occasions (e.g. employees of the organization), while others could be visitors going through the screening exercise for the first time. Either way, individuals form attitudes after going through security screening procedures (Kim et al., 2020; Stotz et al., 2022). In other

words, the experience they undergo can evoke various emotions, influence their intentions, and shape their beliefs about security, privacy, and authority. This view is supported by Maliwat (2018) who found that *security screening can have significant psychological effects on individuals, including the formation of cognitive, affective, and behavioral attitudes*, since people felt humiliated, frustrated, scary, welcome and even relaxed after a screening episode. Similarly, Lum et al., (2013 p.7) in a study found people to be “*nervous, embarrassed, annoyed, inconvenienced, angered, and humiliated*” after undergoing screening. Affective attitudes might include feelings of anxiety, frustration, or annoyance. Behavioral attitudes could manifest as avoidance of certain places or activities, or increased vigilance. Cognitive attitudes might involve beliefs about the effectiveness of security measures, the perceived threat level, or the fairness of the screening process.

Despite the significance of security screening procedures in Uganda, there appears to be a marked absence of empirical studies specifically examining the formation of attitudes among individuals undergoing these processes in the Ugandan context. In fact, a thorough Google Scholar search yielded no specific studies examining the formation of attitudes after security screening procedures in this country. There is thus need to examine the emotional feelings people feel after screening at security points, in order to streamline this inevitable process.

## **1.2 General objective of the study**

The purpose of the study was to examine the type of attitudes (Affective, Behavioral, Cognitive) people form after undergoing screening at Security checks at Total Energies E & P Nwoya district.

## **1.3. Specific objectives**

1. To measure and analyze the affective attitudes formed by individuals after undergoing security screening through self-report measures
2. To measure and analyze the behavioral attitudes developed by individuals as a result of security screening through self-report measures.
3. To measure and analyze cognitive attitudes formed by individuals after undergoing security screening through self-report measures

#### **1.4. Research Questions**

1. What are the affective attitudes formed by individuals after undergoing security screening, as measured through self-report measures?
2. What are the behavioral attitudes developed by individuals as a result of security screening, as measured through self-report measures?
3. What are the cognitive attitudes formed by individuals after undergoing security screening, as measured through self-report measures?

#### **1.5 Justification of the Research**

There are efforts to ensure that oil and gas installations are fully protected through thorough security checks at all main entrances. People's attitudes towards such security checks must be understood to ensure that Zero error is achieved in these checks. Some of these key oil and gas installations are not doing well considering the measures put in place in form of regulations and clear guidelines on how to conduct effective security checks and providing the community guidelines on how to walk through these security checkpoints at such installations. Crabb Et al. (2006) assert that marvelous check point operation automation function is significant for effective security screening. Afroz, (2013) further elaborate that effective automation strengthens the performance and effectiveness of checkpoints. Oil and gas security check points face a challenge of not having automated processes, skilled and experienced officers which adversely affect the ability of the officers on duty to conduct effective screening even from the most notorious persons (Foos et al, 2010). Such challenges come amidst efforts to ensure that all security installations on oil gas installations. Therefore, there is great need to examine the attitudes of people towards the use of Technology on Security checks at Total Energies E & P Nwoya district.

#### **1.6. Significance of the study**

Company management and administration may be enlightened on how people's attitudes could impact on security screening effectiveness in their organizations. The management could therefore see how best to it could improve these aspects in order to achieve improved security screening on key installations.

Stake holders responsible with making policies shall understand people's attitudes towards security screening with metal detectors and walk-through machines and how these may affect the effectiveness of security screening which is very important towards ensuring security of the installation. The results of this study were therefore to help them in formulation of proper policies on how people's attitudes and other variables in the study can better be streamlined to improve security screening in such installations.

The difficulties brought up in this study are likely to prompt participation from other researchers throughout the creation of further understanding from varied viewpoints. The results of this study served as a starting point for further investigations into the connection between attitudes and security screening.

## **1.7. Scope of the Study**

### **1.7.1. Geographical scope**

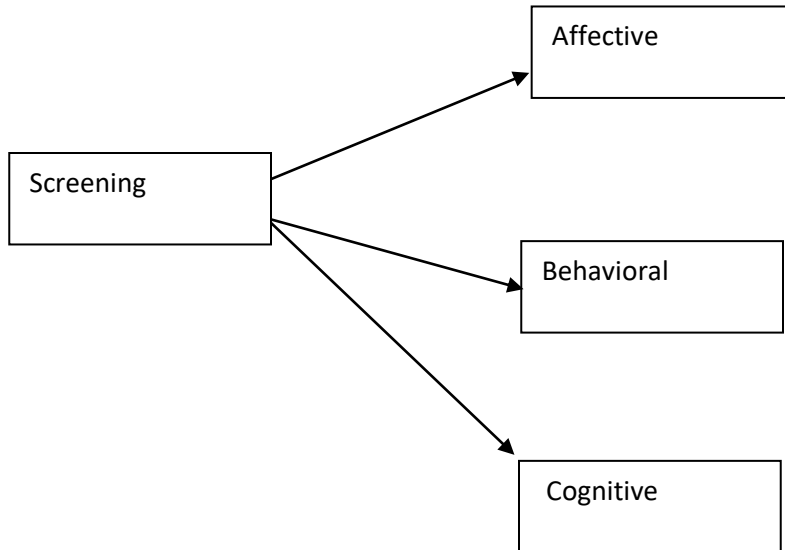
The study was carried out at Total Energies E & P Nwoya district in Northern Uganda. This installation was chosen because of its sensitive nature as it requires high security alertness that screening areas must be working and effective all the time.

### **1.7.2. Subject scope**

The study had two variables that include people's attitudes and security screening. The study had three objectives that included; influence of cognitive attitude component, affective component and behavioral component of attitude on security screening with the use of Technology on Security check point for a span of three months.

## **1.8 Conceptual framework**

A conceptual framework below shows the relationship between people's attitudes and security screening on key installations. In this study, the independent variable of this study was screening while people's attitudes were the dependent variable. In this study according to the conceptual framework below its hypothesized that the experience people undergo during security screening will influence by people's attitudes that are cognitive, affective and behavioral in nature. The beliefs, knowledge, perceptions and conception they had on the screening process and the equipment all influence their emotions after screening (Lee& Kim, 2009; Nevin & Taylor 2009; Baron, 2007).



**Figure 1. 1: Conceptual Framework security screening attitude resultant at security check points.**

**Adapted from:** Rosenberg, M. J., and Hovland, C. I (1960). Cognitive, affective, and behavioural components of attitudes, Attitude organization and change. New Haven, Connecticut: Yale Univ.

Press, 1960. Pp. 1-14.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The chapter entails literature which is related to attitudes and security screening. The literature was drawn from various sources including text books, articles, magazines and newspapers citing critical people's attitudes towards various aspects across the globe. The literature was aligned as per the study aims and objectives; which were; influence of cognitive attitude component on security screening with machines on vital installation entrances, influence of affective attitude component on security screening with machines on vital installation entrances and the influence of behavioral attitude component on security screening with machines on vital installation entrances.

#### **2.1 Theoretical Review**

The study used Technology's Acceptance Model (TAM) (Davis et al, 1989), which was one of the first to use design elements and user psychology to explain how much consumers embrace and use computing technology (Davis, 1989). According to their approach, the way of the users' attitude toward utilizing certain systems (affective reaction) after being exposed to its design elements (external stimulus) is mediated by their opinions about the system's utility and simplicity (cognitive response), which decide how much they actually use the system (behavioral response).

The TAM (Davis, 1989) states that benefits of potential and perceived ease of use are the two factors that determine whether potential users will accept a computer system. The focus on the user's prospective perceptions is what makes this paradigm unique. In other words, even if a technology product's creator believes it to be useful and user-friendly, the product will not be appreciated by prospective consumers until those users share the same views.

The Theory of Reasoned Action, a theoretical foundation created by Fishbein and Azjen, serves as the foundation for the TAM. According to the fundamental idea, an individual's attitude toward a conduct whether positive or negative as well as subjective norms, such as whether the

behavior is considered proper in the context or socially acceptable, define an individual's purpose. The individual's perception of behavioral control was added as a third factor in determining behavior intention in Arjen's (1991) related Theory of Planned Behavior. To balance intention and perceived control, he also emphasized the importance of actual behavioral regulation since no one can act if they cannot do so.

## **2.2 Influence of security screening on cognitive attitude component**

Schiffman and Kanuk (2004) assert that the first element of attitude (cognitive) consists of knowledge and perceptions derived through a combination of interactions with attitude objects and information from related sources. Bellman, research the associations between demographics, personality traits, and viewpoints on screening at checkpoints. According to these authors, those who live a more wired lifestyle and have less free time likely to skip checkpoint screening (Alards et al, 2014).

More than just feelings, attitudes also require knowledge of what you think is true for an object of attitude. This belief is the cognitive part of their attitude regarding psychology, whether it is entirely true or entirely wrong. The cognitive aspect of an attitude is crucial when making a decision based on facts available and deciding whether you have a favorable or unfavorable impression on it, and this plays a significant role in how they should be screened at checkpoints or not (Bagchi & Paul, 2014). The word "cognition" means "to know, to conceptualize, or to perceive".

Since we organize knowledge about an attitude object, the cognitive component of attitude is the storage component. It consists of ideas, opinions, and notions towards the attitudinal object. As a result, beliefs are only cognitions about how likely it is that a certain attribute will be linked with a certain item or occurrence (Fishbein & Ajzen, 2005). When a person is the target of an attitude, stereotypes are frequently the cognitive component.

When people process information regarding the attitude object, they engage in cognitive processing that results in the creation of beliefs (Benda, 2015). This theory of reasoned action (Ajzen & Fishbein, 1980) demonstrated that attitudes are made up of the ideas that a person develops throughout their career, which is similar to attitude theory. An individual's attitude is

their conviction that a certain action will result in a favorable or unfavorable outcome. Therefore, if a person has optimistic ideas about how a behavior will turn out, he or she will also have optimistic attitudes toward the conduct, and this extends to screening at checkpoints.

In contrast to affective and conative (behavioral) responses, Skorupski and Uchroski (2015) hypothesized that cognitive responses, such as people's cognition and understanding of objects, have predominantly influenced (mediated) perceptions of and attitudes toward advertisements. Zajonc and Markus (1982) found that cognitions were more likely to be significant in preference constructions than were attachments as cognitive components, such as reliability in a service given like screening at checkpoints, become established before one's preference was fully created. It would be more effective to alter preferences through cognitive methods (components) than an emotive approach (Pike & Ryan 2004).

The mental element of attitudes, in certain circumstances, one's attitude may depend primarily on the positive and negative characteristics they associate with an object. As a result, behavioral choices are sometimes dependent with personal details concerning a particular individual we are interacting with rather than on precise knowledge about the attitude object. For instance, Bolting et al. (2008) found that cognitive load and happiness both increases rely on current knowledge structures rather than details. Since it is far less probable that details well about example will be used when making decisions procedure when people with a positive disposition, their behavior towards an example are more compatible with their attitude evaluation about the subcategory (Gursoy and Rutherford, 2004).

A person's status of happiness when they are judged is used to determine their attitude. When participants are in a similar mood when the behavior test is administered setting and the conduct is irrelevant, it may be difficult to recognize any attitude-behavior coherence in this case, making a person seeming affective reaction good for making a judgment. Additionally, any other variation in how inspiration is processed the relationship among attitude and behavior is equally likely to deteriorate just a moment of judgment and behavior (Kierzkowski & Kisiel, 2015).

When people consider the context in which the behavior is to be performed when making an attitude judgment, the likelihood of attitude-behavior consistency is increased. However, attitude assessments are typically made without considering the possible situation where an attitude object might be experienced, leading to a lack of consistency between attitudes and behaviors (Sagiv & Roccas, 2021). For the purpose of measuring both cognition and affect, semantic differential scales made up of generic dimensions that applied in measuring either cognition effect on various types of attitude objects, or they have applied the same semantic differential dimensions to measuring both cognition and affect toward a specific attitude object (Nahl & Bilal, 2007).

The cognitive aspect of attitudes is defined as the beliefs, ideas, and traits we associate with a certain thing. In various circumstances, an individual's attitude may be primarily influenced by both the favorable and unfavorable qualities of the attitude object. As opinions about numerous situations were formed, both the positive and negative sides of each event were intentionally taken into account. Cognitions have an impact on a variety of various types of attitudes (Madden et al., 2013).

According to one explanation of attitudes, beliefs are the result of basic cognitions about the attitude object. These basic cognitions are what cause attitudes. An attitude item will receive a good rating if it is thought to be connected to or leading to good stuff while minimizing bad things. In determining total attitudes, only significant beliefs those that one considers to be most relevant count (Nasser, 2004).

### **2.3 Impact of security screening on affective attitude component**

The construct of attitudes is defined as the emotions or feelings associated with an attitude object. Affective reactions are just one of the many aspects that influence attitudes. The affective reactions that a person has after it had been exposed to an attitude object are the main way that feelings affect attitudes. These adverse affective reactions could result in an unfavorable attitude toward screening at checkpoints (Bowler et al., 2017).

The construct of attitudes is defined as the emotions or feelings associated with an attitude object. Multiple factors affect attitudes, including affective responses. One important way that feelings affect attitudes is through the reactions they elicit in response to attitude objects. This adverse emotional response is likely to result in unpleasant feelings against spiders (Wolff et al, 2019).

When something, someone, or some event is the attitude object, or the subject of our attitude, it is said to have an effect. Examples of affects include fear, pity, hate, like, and pleasure. Your feelings regarding your boss, the painting in your office lobby, or the fact that your business recently won a significant contract may be favorable or negative. Obviously, the strength of these emotions can vary. Such emotions emerge from our experiences (or those we observe) and direct our behavior in the future (Petty and Briol, 2015).

The emotional component includes how someone feels about the attitude object (Schiffman and Kanuk, 2004). Based on emotional experiences or preferences, an affective component. Experiences with the security screening criteria can have both positive (joy) and negative (anger) effects. Both positive and negative emotions play separate roles in whether or not a person is satisfied with the security screening services. Persons are more likely to judge an attitude object favorable experience with security screening service attributes, whereas individuals who have negative mood reactions are less likely to do so (Sutalaksana et al, 2019).

The feelings or emotions that people identify with their attitude object, as well as the valence of those feelings, are accounted for by the affective component of attitudes (Joyce et al, 2017). Positive emotion is a reflection of how motivated, aware, and active a person feels. Sometimes people define it as having a good time and being totally present. People with high PA tend to be gregarious, outgoing, and active (Bravo-Lillo et al, 2011). Considering that PA has been associated with extroversion, it is not surprising that these people also exhibit more social behavior. People with high PA scores also likely to be happier at work and in life overall and to be sensitive to the frequency of rewards, suggesting they may have a preference for life's positive parts (Sauvik Das, 2017).

Additionally, those with high negative affect (NA) are typically uneasy or otherwise inclined on concentrating on the negative parts of life. People's level of NA indicates how much they generally suffer subjective distress and unpleasant engagement, which can manifest as a variety of different emotional states like rage, scorn, disgust, guilt, fear, and jitteriness (Sauvik Das, 2014).

According to the affect infusion concept, weighting affective input throughout the judgment process affects that judgment (Chen et al, 2020). To put it another way, people are cognitive misers who use their current emotional state as a trigger to speed up the processing of the data needed to evaluate the target object. According to the affect infusion model, affect exerts a selective influence on cognitive functions; altering cognitions just enough to reflect freshly acquired emotional information. As a result, affect is seen as fresh information that needs to be processed intellectually (Conner et al, 2014).

The affective events theory contends that while cognitions will lead to more planned trait for example a decision not to be checked at a check point, affect will lead to more instantaneous emotional responses like positive or negative conduct that will accept to be screened at check points (Fisher & Ashkanasy, 2000). Affect is viewed as a byproduct of the workplace that, over time, influences both affectively driven conduct and judgment driven behavior via influencing cognitive comparisons (Fisher & Ashkanasy, 2000).

In order to do this, the affective events hypothesis proposes that although certain acts are cognitively primed yet influenced by affect, others are affectively primed. However, the behaviors that emerge from these circumstances could be very dissimilar from one another. It shouldn't be a surprise that persons who exhibit extremely high amounts of happy or negative affect have the strongest effects on cognitions (Judge & Ilies, 2004). These individuals probably place more significance on feelings than on thoughts or are overpowered by the accessibility of affect, which leads them to give their affective responses to attitude objects more weight when making judgments (Peters et al, 2006).

The significance of affective or emotional components that could alter the screening process at checkpoints has been underlined in a lot of attitude research. Emotion and cognition, or how we think about a problem or circumstance, go hand in hand. Emotional appeals are frequently used to create tension, such as fear of being stopped at a checkpoint. Any distinct feeling, including jealousy, contempt, indignation, fear, humor, and wrath, can be employed in a persuasive argument (Skorupski & Uchroski, 2015).

According to research, affect is crucial in the development of attitudes. For instance, Kim et al (1998) carried out two studies utilizing well-known conditioning techniques look at affect results on the development of attitudes toward particular products. The findings suggested that attitudes can still be influenced by affect even in the absence of product beliefs. In addition, depending on the quantity of repetitions, affect can be just as significant as the belief process in the creation of attitudes. Affect is regularly involved in behavioral changes, seduction, peer acceptance, and sometimes even judgment call. Purely cognitive justifications for a result may be superseded by how we feel about it.

Based on emotional experiences or preferences, an affective component. Interactions also with quality of the good or service can be both favorable and unpleasant (pleasure) and negative (anger) affective influences on the services (Phipps et al, 2021). Community members often rate an attitude object favorably when they have positive affect reactions to their use of the service, whereas they are less likely to do so when they have negative affect reactions. According to this argument, an attitude cannot exist before actual consumption or experience because it is made up of emotive elements (such as joy, rage, favor, and satisfaction) and is typically manifested in behavior.

Based on emotional experiences or preferences, an affective component. Experiences with the qualities of the product or service can have both positive (joy) and negative (anger) effects. Both positive and negative emotions can independently influence whether a person is satisfied or dissatisfied with a product or service. People are more likely to judge an attitude object favorably, for example, for affect reactions that are positive to an experience with the features of

a product or service, and they are less likely to do so if they have negative affect reactions (Joyce et al, 2017).

These components may be examined in detail to reveal a variety of having both favorable and unfavorable thoughts (cognitive ambivalence), favorable and unfavorable feelings (affective ambivalence), or favorable and unfavorable conduct situations. Discrepancy in the polarity of thoughts, attitudes, and behaviors may also result in contradicting assessments. People may, for instance, have a lot of false notions and strong feelings about something, like whole-body scanner equipment. Researchers can use one of several different formulas created for the purpose to determine the degree of disagreement between people's negative and positive judgments of an attitude object (Icek Ajzen, 2001).

Emotions can begin to be linked to attitude-related things in a variety of ways. Many scholars have investigated how applying traditional training techniques to the task of connecting emotional input with just an object of attitude can produce either a good or bad attitude. For instance, in a 1992 study by Krosnick, Betz, Jussim, and Lynn, participants watched a series of photographs of an unidentified person. Each vision was followed, crucially, by a highly emotional picture that's been subconsciously presented, or shown for an extremely short period of time underneath the threshold necessary for conscious storage. Some people had unpleasant images, while others had pleasant thoughts (Plowman & McPake, 2013).

## **2.5 The influence of security screening on behavioral attitude component**

In regard to the attitude object, a person's observable actions are tied to the behavioral (conative) element. This one addresses the potential for someone to exhibit a specific behavior toward the attitude object (Schiffman and Kanuk, 2004). Involvement is seen as a key term in describing how people engage in activities and behave in relation to the attitude object, according to Havitz and Dimanche (1999). Many scholars have defined participation in respect to both items and behaviors. Involvement is a behavioral commitment that people differentiate based on their level of activity. Therefore, without reference to a particular perspective, involvement is tied to a broad level of interest in or concern about a problem.

In security screening, Jonas et al. (2016) discovered an attitude-behavior coherence and demonstrated that attitudes were significantly influenced by cognitive and emotional factors.

Individuals' perceptions of and attitudes about security elements are primarily influenced (mediated) by cognitive reactions, such as their reasoning and object knowledge. Pike (2008) suggested using cognitive, emotional, and conative components in the evaluation of visitor sentiments. Pike claims that cognition, which denotes consciousness, is the sum of what is known or thought about a destination and the information associated to the destination. This knowledge may or may not have been developed from the earlier visit.

An inclination or predisposition to act a specific way is a behavioral component of attitudes. Considering the distinction between behavior and a behavioral tendency, behaviors are characterized as an individual's overt acts. It is crucial to understand that one's intention to behave a specific manner may or may not be reflected in their actual behavior. It is more logical to believe that a person's behavioral goal, verbal signal, or normal behavioral inclination, as opposed to actual behavior, is more likely to be in sync with his affective and cognitive components. It's possible that your actions toward an attitude object don't match your feelings (affect) and knowledge about it (cognition) (Thomas et al 2006).

Humans can adopt a favorable viewpoint of a thing only by being exposed to it frequently. The mere exposure effect, which refers to the propensity to feel better about things and people, the more we are exposed to them is what causes this. When something is regularly exposed to us, whether it's a stranger in a neighborhood or our own face, we tend to develop a natural preference for it (Bossler and Holt, 2010).

Based on people's outward behaviors in response to the attitude object, the behavioral component measures people's attitudes (Felt et al, 2012). The past behavior that was shaped by direct or indirect encounters is the source of attitudes. According to a self-perception theory of attitude formation, people frequently infer attitudes from past activities. The concept of involvement is seen as essential to understanding how people engage in activities and behave in relation to attitude objects. As a behavioral commitment that set people apart in terms of their activities, involvement (Stanton et al, 2005).

Regarding an attitude object, past actions or experiences are referred to in the behavioral component of attitudes. According to Bem's (1972) self-perception theory, people frequently infer their attitudes by reflecting on how they have acted in the past toward the attitude object because they do not always have access to their ideas about various items. There are certain drawbacks to this kind of action as well. Most crucially, the keen reader will have noted that only the cognitive and affective components were specified in the semantic differential measurements. It has been challenging for academics to develop reliable semantic differential scales for this component due to the diffuse character of behavior (Deahl, 2014).

Strongly held views may also be influenced by behaviors, although in a different way. People are capable of altering their attitudes in order to align them with their past behavior. People might, for instance, persuade themselves that they enjoy a number of tedious jobs if they are only offered a meagre reward for bragging about them to others. The counter altitudinal behavior causes an aversive arousal that participants are encouraged to reduce, which results in this effect. This effect is especially likely to happen when the behavior poses a threat to one's sense of self (Cunningham et al, 2001).

Additionally, attitudes are more directly influenced by behaviors. According to research, engaging in behavior that contains evaluative undertones or implications affects how favorable sentiments are seen. For instance, in a study done by Briol and Petty in 2003, participants were led to believe that they were taking part in a consumer research study on the caliber of headphones. A headphone maker explained to the participants that they wanted to know how well headphones worked when listeners were dancing and jogging, among other activities. As they listened to an editorial broadcast over headphones, participants in a study by Briol and Petty (2003) were instructed to move their heads either up and down (nodding) or side to side (shaking). Because nodding is a move that is frequently linked with agreement, it was anticipated that when the reasons in the editorial were strong, participants would be more favorable toward the viewpoint being pushed in the message. The findings showed that when participants moved their heads up and down as opposed to side to side, they were more likely to agree with the content of a highly convincing argument.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter deals with the research methodology which was employed during the entire research process. The study describes the research design, study area, study population, sample size determination, sampling procedure, data sources, data collection instruments, data management and analysis, validity and reliability of instruments, ethical consideration, and anticipated limitations and delimitations. The study will utilize quantitative of data collection and analysis of results.

#### **3.1 Research Design**

The study used a cross-sectional design that combines quantitative methods. Analytical and descriptive research methods was used to determine whether changes in the independent factors had an impact on the dependent variable. The study was a cross-sectional survey since relevant information was gathered from a lot of participants in order to serve as a reference of the relatively small population (Creswell, 2003). Quantitative research method was used for this investigation. In order to explain, forecast, and regulate phenomena of interest, the quantitative method entailed the acquisition of numerical data, with data analysis primarily being statistical (Amin, 2005).

#### **3.2 Area of the study.**

The study was carried out in Nwoya district in the northern Uganda. Total Energies E & P operates a site in Nwoya district. Total Energies E & P Uganda collaborates with China National Offshore Oil Company (CNOOC) in Uganda and Uganda National Oil Company (UNOC). The Tilenga project run by Total Energies EP Uganda, and the Kingfisher project, run by CNOOC Uganda, makes up the upstream project. This made it one of the major installations that needed to have serious security screening.

### 3.3 Sources of information

The study involved primary data that was collected from primary sources with the use of a questionnaire. The study also used secondary sources of data that helped to inform the literature sections as well as other parts of the study that require secondary data.

### 3.4 Population and sampling Technique

The unit of analysis for this study was vital installations Total E & P energies Nwoya district. These installations are highly protected by government. This means these installations must have strict security procedures and must follow strict guidelines, rules and regulations in their screening and security processes. The study was carried at Uganda that is Nwoya district where 105 staff members, 10 top managers and 60 visitors were selected to participate in the study. It is believed these people provided specific information as may be required in the study.

**Table 3. 1: Population and sample size**

| <b>Category</b> | <b>Population</b> | <b>Sample size</b> | <b>Sampling Technique</b> |
|-----------------|-------------------|--------------------|---------------------------|
| Top managers    | 10                | 10                 | Purposive sampling        |
| Staff members   | 105               | 80                 | Simple random sampling    |
| Visitors        | 60                | 52                 | Convenience sampling      |
| <b>Total</b>    | <b>175</b>        | <b>142</b>         |                           |

#### **Source : Primary data**

The study population was subjected to Krejcie et al. (1970) sample size determination table to choose the actual sample that participated in the study.

### 3.5 Sampling Method and Size

According to the chart above, there was a total of 142 participants in the study. To determine the exact sample size of 142 people, Krejcie and Morgan's determining sample size table was used. Top managers were chosen by deliberate sampling because they were well-defined and well-known. The lottery approach was used to choose staff members from a simple random sample. On small pieces of paper, a list of the participants was written, and the first 80 were chosen to

participate in the study. The collected data was aggregated to the unit of analysis given that data was collected from the respondents representing key installations. Convenience sampling was used to select visitors who were found on site for the period the study was being carried out.

### **3.6 Data Sources**

#### **3.6.1 Primary Data**

At Total Energies E & P, the necessary primary data was immediately gathered from the respondents. A well-designed questionnaire was used for this. To achieve a high level of accuracy in the data gathering procedure, respondents were coached through the questions.

#### **3.6.2 Secondary data**

Secondary information was used to back up the study's empirical findings. Study material in journals, textbooks, earlier research paper findings, newspapers, and conference proceedings were used to gather this information.

### **3.7 Variables definitions and measurements**

The quantitative data was collected from each respondent using a pre-coded structured semi-standardized questionnaire with responses ranging from 1-not very relevant to 5-extremely relevant on a Likert scale.

**Peoples' attitudes;** was measured using Ajzen Et al. (2005) 3 scale of; cognitive, affective, and behavioral components

**Security screening;** was measured using Beske et al. (2012) three measure dimension of zero error, efficiency, number screened.

### **3.8 Data collection procedures**

The researcher obtained a letter of introduction from the head of department at Uganda Christian University. Other preparatory phases included introductory visits to company officials, where the researcher and subject matter specialists on the subject matter are based. At the same time, the draft questionnaire was discussed and potential research assistants needed to aid the process of data collection were identified. Then, the researcher hired 5 local fresh graduates as Research Assistants (R/A) and two (2) team leaders, who were trained on the questionnaire tool. These were local natives, who were well versed with the local language, the villages and behavior of

natives. They were equipped with the data in which the researcher was interested. A pre-test study of the questionnaire survey was on a sample of 10 respondents. The reason being, in order to get a statistical significance, a large size of sample respondents (10) for pretest would give us greater power and the ability to conduct more complex statistical tests. This gave us chance to make a review and check for validity, consistency and reliability issues. This was done in consultation with the University supervisor. After all reviews and consultations, the researcher moved to the field with the research assistants to collect data. Interviews were conducted with the top managers. All information obtained from the interviews went through recording manually on data sheets by the interviewers and checked by lead field research staff.

### **3.9 Data Collection Instrument**

#### **3.9.1 Questionnaire**

To gather quantitative data, semi-structured questionnaires was employed. Primary data was collected from respondents using structured five-point Likert scale questionnaire. The questionnaire contained closed ended questions. The questionnaire was self-administered to ease the process and save time since most respondents can read and write where necessary clarity was given.

### **3.10 Quality Control**

#### **3.10.1 Validity and Reliability of Research Instruments**

Cresswell (2010) looks at reliability as the extent to which research tools produce consistent outcomes after numerous trials. The Cronbach's Alpha value was used to assess the dependability of the research instrument. The reliability test included each item on the scale that was derived from a review of the literature on the variables being investigated. The instrument was considered valid if the alpha coefficient for each test variable was more than 0.6, as advised by Creswell (2010).

### **3.11 Data Processing and Analysis**

**Data analysis followed the procedure below:**

- a) Qualitative data analysis was done using content analysis.**
- b) Descriptive statistics were obtained from the quantitative data (means and standard deviations of the items in each of the study variables were calculated, plus frequencies and percentages).
- c) Composite measures of the study variables i.e. screening, affective, behavioral and cognitive attitudes were formed.
- d) A correlation matrix between these variables was constructed, to examine their relationships.
- e) This was followed by linear regression, to examine the extent to which screening influences each of these attitudes as per each specific objective and the study model.

The results of the above process formed the basis for the discussion and recommendations of this project.

### **3.12 Ethical Considerations**

In order to obtain approval and consent from Total E & P energy management, the researcher requested an introduction letter from the university. To protect the respondents' safety, social and psychological well-being, the information gathered was confidential.

### **3.13 Methodological Constraints**

During data collection process, I anticipate that some research assistants would find a problem in areas where some respondents would not respond to some questions, hence limiting access to some information and provision of inaccurate data in other cases.

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF DATA

#### 4.1 Introduction

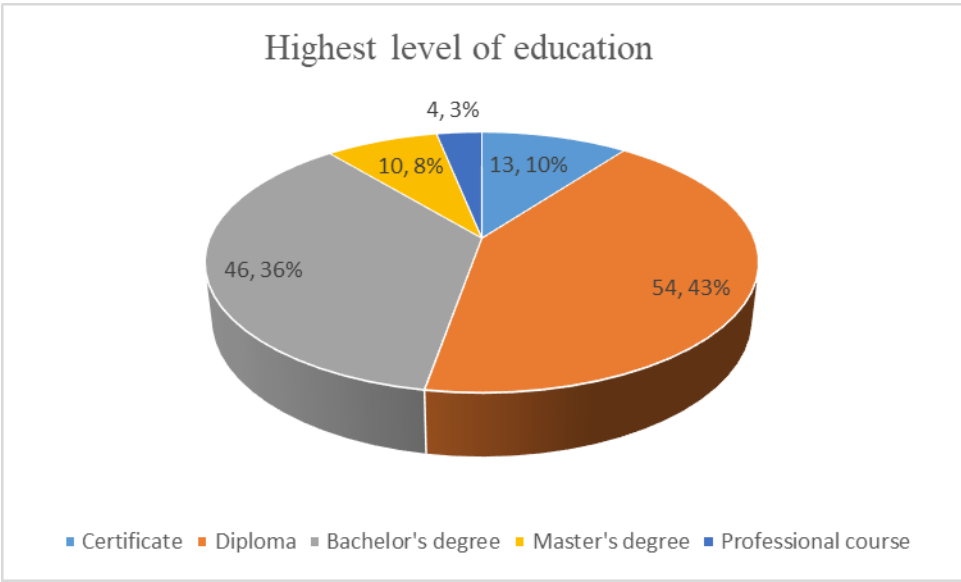
This chapter presents the findings of the study from both quantitative and qualitative data. The study sought to examine the attitudes of people towards the use of Technology on Security checks at Total Energies E & P Nwoya district. Data was analyzed and is presented according to the objectives of the study which were; to examine role cognitive attitude component on security screening with the use of Technology on Security checks, to examine how affective attitude component impact on security screening with the use of Technology on Security checks and to examine the effect of behavioral attitude component on security screening with the use of Technology on Security checks. The response rate was 134 respondents in both the questionnaires and interview representing 94.4% of the response rate out of the 142 sampled respondents 134 actually participated in the study. The chapter also presents background information of respondents who participated in the study in regard to gender, education level age and years spent in church service. The findings from both the questionnaire and interview are presented according to the objectives of the study. Presented first are results on the background information of respondents.

**Table 4. 1: Gender of Respondents**

|              |        | <b>Frequency</b> | <b>Valid Percent</b> |
|--------------|--------|------------------|----------------------|
| <b>Valid</b> | Male   | 71               | 55.9                 |
|              | Female | 56               | 44.1                 |
|              | Total  | 127              | 100.0                |

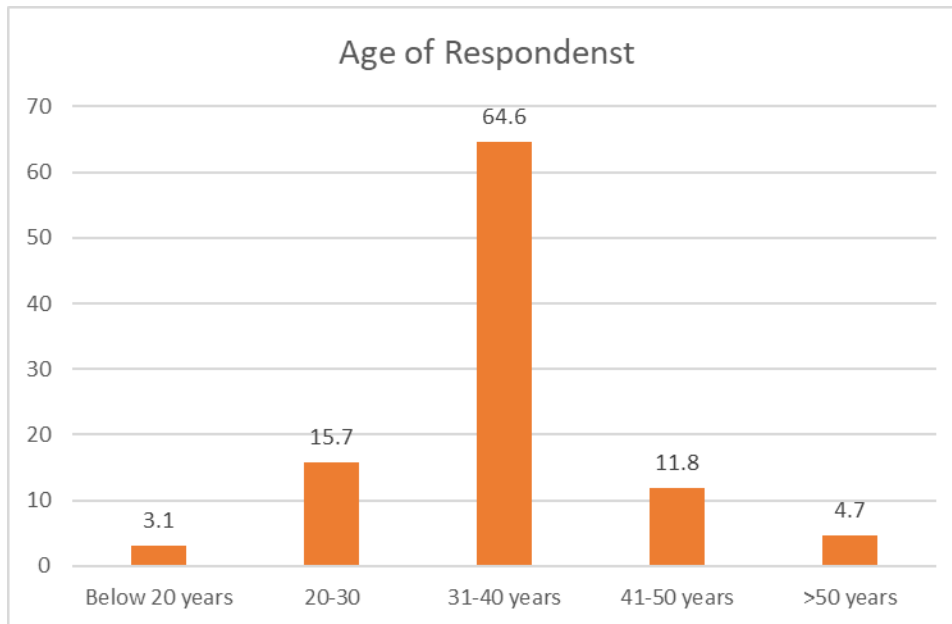
**Source: Primary Data**

In this study, the gender of respondents was established and from the findings it was revealed that 55.9% of respondents that participated in the study were male whereas 44.1% were female. This implies that men dominate in the security screening processes using technology at checkpoints.



**Figure 1: Highest level of education**

The education level of respondents that participated in the study was established and it was revealed that 43% had diploma level of education, 36% had bachelors' level of education, 10% had certificate level of education, 10% had a certificate level of education and 8% that participated in the study had masters level of education and 3% had professional level of education meaning that most people in the security screening process using technology had diploma level of education and more hence understood.



**Figure 2: Age of respondents**

Study findings revealed that 64.6% of respondents that participated in the study were aged between 31-40 years, 11.8% were aged between 41-50 years whereas 15.7% were aged between 20-30 and 3.1% were aged below 20 years and 4.7% were aged above 50 years of age. This implies that screening process involves vibrant young and energetic persons who understand how the various attitudes affect security screening.

**Table 4. 2: Period of work in the organization.**

| Period      | Frequency | Percentage |
|-------------|-----------|------------|
| 0-3 years   | 23        | 18.1       |
| 4-6 years   | 28        | 22         |
| 7-10 years  | 44        | 34.6       |
| 11-15 years | 15        | 11.8       |
| > 15 years  | 17        | 13.4       |
| Total       | 127       | 100        |

**Source: Primary Data**

The period to which respondents had spent working in the organization was also found out and findings revealed from the respondents that 34.6% had served in the organization for 7-10 years,

22% had served in the organization for 4-6 years, 11.8% had worked in the organization for 11-15 years, 13.4% had served in this organization for more than 15 years, 18.1% had worked in the organization for 3 years. This implies that majority of respondents had worked in the organization for more than seven years.

#### 4.2 Correlation between study variables

In order to examine the relationships between the study variables items used to measure these variables were combined to form various composite measures of each. This was followed by construction of a correlation matrix among all of them, followed by linear regression.

*Table 4. 3: Correlation matrix of study variables*

|                   | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> |
|-------------------|----------|----------|----------|----------|
| <b>Cognitive</b>  | 1        |          |          |          |
| <b>Affective</b>  | .784**   | 1        |          |          |
| <b>Behavioral</b> | .237**   | .384**   | 1        |          |
| <b>Screening</b>  | .630**   | .646**   | .269**   | 1        |
| <b>Mean</b>       | 3.59     | 3.59     | 2.87     | 3.27     |
| <b>(SD).</b>      | (.874)   | (.699)   | (.839)   | (.665)   |

\*\* Correlation significant at the 0.01 level (2 tailed)

N=127

**Source: Primary data**

The correlation matrix above shows that all the variables were positively and significantly correlated.

### 4.3: Specific objective one: The impact of screening on affective attitude component

In the study respondents were involved in answering questions that sought to answer the impact of screening on affective attitude. The results of the study are presented below.

**Table 4. 4: The table below shows the impact of screening on affective attitude component**

| Statement  | SD |      | D  |      | NS |      | A  |      | SA |      | Total |       | Mean | Std. Deviation |
|--|----|------|----|------|----|------|----|------|----|------|-------|-------|------|----------------|
|  | F  | %    | F  | %    | F  | %    | F  | %    | F  | %    | F     | %     |      |                |
| When going through security screening, I often feel anxious or nervous.                                | 10 | 7.9  | 22 | 17.3 | 21 | 16.5 | 39 | 30.7 | 35 | 27.6 | 127   | 100.0 | 3.52 | 1.27           |
| The security screening process at vital installations makes me feel safer.                             | 38 | 29.9 | 36 | 28.3 | 15 | 11.8 | 17 | 13.4 | 21 | 16.5 | 127   | 100.0 | 2.58 | 1.45           |
| Security screening procedures at vital installations often make me feel inconvenienced.                | 12 | 9.4  | 15 | 11.8 | 14 | 11.0 | 42 | 33.1 | 44 | 34.6 | 127   | 100.0 | 3.71 | 1.30           |
| I have positive feelings about the staff who conduct security screening at vital installations.        | 18 | 14.2 | 17 | 13.4 | 35 | 27.6 | 33 | 26.0 | 24 | 18.9 | 127   | 100.0 | 3.22 | 1.29           |
| I trust that the security screening process is effective in preventing threats at vital installations. | 10 | 7.9  | 15 | 11.8 | 17 | 13.4 | 50 | 39.4 | 35 | 27.6 | 127   | 100.0 | 3.66 | 1.22           |
| I like the professionalism exhibited by the security personnel during the screening process.           | 18 | 14.2 | 38 | 29.9 | 27 | 21.3 | 22 | 17.3 | 22 | 17.3 | 127   | 100.0 | 2.93 | 1.31           |
| My previous experiences with security screening at   | 20 | 15.7 | 30 | 23.6 | 19 | 15.0 | 40 | 31.5 | 18 | 14.2 | 127   | 100.0 | 3.04 | 1.32           |

|   |    |      |    |      |    |      |    |      |    |      |     |       |      |      |  |
|---|----|------|----|------|----|------|----|------|----|------|-----|-------|------|------|--|
| vital installations have been generally positive.   |    |      |    |      |    |      |    |      |    |      |     |       |      |      |  |
| I trust that my belongings are handled responsibly during the security screening process.               | 24 | 18.9 | 15 | 11.8 | 10 | 7.9  | 42 | 33.1 | 36 | 28.3 | 127 | 100.0 | 3.40 | 1.48 |  |
| I feel a sense of personal connection with the importance of security screening at vital installations. | 23 | 18.1 | 18 | 14.2 | 39 | 30.7 | 24 | 18.9 | 23 | 18.1 | 127 | 100.0 | 3.04 | 1.33 |  |
| The security screening process resonates with my personal values and concerns.                          | 17 | 13.4 | 13 | 10.2 | 22 | 17.3 | 35 | 27.6 | 40 | 31.5 | 127 | 100.0 | 3.53 | 1.37 |  |

**Source: Primary data**

From the findings above when respondents were asked if they often feel anxious or nervous, a significant majority, 58.6%, agreed that they did with a mean of 3.52 and a standard deviation of 1.27756. This suggests a noteworthy emotional impact associated with security screening, as the majority of respondents reporting feeling anxious or nervous during the process. The relatively high standard deviation indicates some variability in individual experiences, emphasizing the diverse emotional responses to security screening.

Interview findings indicated that a significant number of participants resonate with feeling anxious and nervous during security screening. One respondent shared as below,

*“...The process, while necessary, induces a bit of nervousness.... It’s like a quick mental checklist, and the awareness of potential risks adds to the tension. It’s not a negative feeling, rather a heightened awareness of the importance of the security procedures...”*

This implies that the perceived anxiety is intertwined with a heightened awareness and acknowledgment of the security procedures' importance.

Respondents were asked concerning the perception of safety of metal detectors and walk through machines, the majority of the respondents 58.2% agreed that the security screening process at vital installations makes them feel safer. The mean for this statement is 2.58, and the standard

deviation is 1.45. This implies that while a substantial portion associates a sense of safety with the security screening procedures, there was considerable variability in how respondents perceive the security measures effectiveness in promoting safety.

Majority of the respondents believe that security screening procedures at vital installations often make them feel inconvenienced, this was witnessed with a substantial response of 67.7% agreeing. This resulted in a mean of 3.71 and a standard deviation of 1.30, indicating that a notable proportion of respondents perceive the screening process as causing inconvenience. The higher standard deviation suggests varied experiences and degrees of inconvenience reported by respondents during security screening.

A consensus emerged from the interview data, indicating that a significant majority acknowledges feeling inconvenienced by security screening procedures at vital installations. One respondent provided a nuanced perspective that,

*“...while the inconvenience is undeniable, especially during peak times, I recognize the necessity. It's a trade-off between personal comfort and collective safety. The inconvenience is a minor sacrifice when weighed against the potential risks that these thorough screening procedures aim to mitigate...”*

Hence this shows that while inconvenience is acknowledged, there is an underlying acceptance of the trade-off for enhanced security among respondents.

From the findings, majority of respondents expressed their positive feelings about the staff who conduct security screening with a mean of 3.2 and standard deviation of 1.29. With 44.9% expressing positive feelings, respondents generally appreciated the professionalism of security personnel. The lower standard deviation suggests some variability, implying that while most respondents hold positive views, there are differing degrees of appreciation for the conduct of security staff by the respondents.

Regarding trust in the effectiveness of the security screening process in preventing threats, a significant majority of respondents with 60% expressed agreement to the issue. This results in a mean of 3.66 and a standard deviation of 1.22, indicating a high level of confidence in the efficacy of security screening measures at vital installations. The relatively low standard

deviation suggests a consistent trust in the preventive capabilities of the security screening process among respondents.

Respondents were also asked to express their views on liking the professionalism exhibited by the security personnel during the screening process, a substantial percentage of 51.2% expressed agreement, resulting in a mean of 2.93 and a standard deviation of 1.31. This suggests that a significant proportion of respondents appreciates the professionalism demonstrated by security personnel during the screening process. This standard deviation indicates some variability in the extent of positive sentiments towards professionalism by the respondents.

The majority expressed their previous experience at vital installations and they had a mean of 3.04, with a low deviation of 1.32. The majority 45.7% reported generally positive experiences at vital installations, the lower standard deviation suggests varying degrees of positivity. While most respondents had positive encounters, individual experiences may range from moderately positive to extremely favorable.

During the study, respondents expressed their trust in responsible handling of belongings during screening had a mean of 3.40 with a standard deviation of 1.48. A notable 61.4% expressed trust in the responsible handling of belongings during security screening. The higher standard deviation indicates varying degrees of trust, reflecting differences in respondents' confidence levels regarding the careful handling of their possessions during the screening process.

Interview outcomes underscore a prevailing trust within the majority regarding the responsible handling of belongings during the security screening process. One of the participant's perspective sheds light on this trust, as she conveyed,

*“...have never had any concerns about how my belongings are handled. The staff's professionalism and diligence instill confidence that personal items are treated responsibly. This trust in the handling of belongings contributes significantly to a positive overall perception of the security screening process...”*

The above response implies a prevailing sense of trust in the responsible handling of personal items during security screening, contributing to a positive overall perception of the process.

Regarding a sense of personal connection with the importance of security screening at vital installations, it is expressed by a significant. There was 44.9% of respondents' agreement with a mean of 3.04, it had a low standard deviation of 1.33. This suggests that a substantial portion of respondents feels personally connected to the significance of security screening, with some variability in the strength of the perceived connection.

When respondents were asked about security screening's resonance with personal values and concerns, there was a notable 59.1% that agree. This had a mean of 3.53 with a standard deviation of 1.37. This indicates that a significant proportion of respondents finds alignment between the security screening process and their personal values and concerns, with some variability in the extent of resonance with personal values.

**Regression analysis**

Following this qualitative part, a regression analysis was carried out with screening as the independent variable, and affective attitude as the dependent. Results are presented below:

**Table 4. 5: Security screening and affective component**

| Model |                    | Unstandardized coefficients |                | Standardized coefficient | Significance testing |      | Collinearity statistics |      |
|-------|--------------------|-----------------------------|----------------|--------------------------|----------------------|------|-------------------------|------|
|       |                    | B                           | Standard error | B                        | t                    | Sig. | Tolerance               | VIF  |
| 1     | Intercept          | 1.381                       | .239           |                          | 5.78                 | .000 |                         |      |
| 2     | Security screening | .676                        | .071           | .646                     | 9.45                 | .000 | 1.00                    | 1.00 |

**Source: Primary Data**

(N.B Adjusted R square in the above model is 0.41).

The table above shows:

**Unstandardized Coefficients (B):** A one-unit increase in security screening is associated with a 0.800 increase in the cognitive component.

**Standardized Coefficients (Beta):** The standardized coefficient of 0.646 indicates a moderately strong positive relationship between security screening and the cognitive component.

**t-statistic and Sig.:** The t-statistic of 9.45 and a significance level of 0.000 suggest a highly significant relationship.

**Collinearity Statistics:** The VIF of 1.000 indicates no multicollinearity.

### **Interpretation of the Results**

Based on these results, we can conclude that:

- a) Security screening has a significant positive relationship with the cognitive component of attitudes.
- b) A higher level of security screening is associated with higher levels of the cognitive component.
- c) The relationship is moderately strong, as indicated by the standardized coefficient of 0.646.

### **Explanations for affective component**

The study scale measures a combination of **positive and negative emotions** related to security screening. Items like AC01 (anxiety) and AC03 (inconvenience) capture negative emotions, while items like AC02 (safety) and AC04 (positive feelings about staff) capture positive emotions.

### **Interpreting the Positive Coefficient**

Given that the regression analysis showed a positive coefficient for security screening on the affective component, it suggests that higher levels of security screening are associated with a combination of both positive and negative emotions. This is well evidenced in the interviews above as some people felt anxiety and inconvenience, while others exhibited positive emotions.

### **Thus, in effect**

- a) While security screening may lead to some negative emotions (e.g., anxiety, inconvenience), it also evokes positive emotions (e.g., safety, trust).

- b) The overall affective experience may be mixed, with both positive and negative feelings contributing to the overall attitude.

The adjusted R square change of .41 suggests that screening explains for 41% of the variance in affective attitudes. In practical terms, these results suggest that when users at security checkpoints feel positive towards the technology when they trust it and have a favourable emotional response this enhances their engagement with the technology and leads to better security outcomes. For security installations, particularly those in high-stakes environments, fostering positive emotional attitudes towards and after use of the technology can be a key strategy in optimizing security measures. Efforts to build trust in the technology, possibly through user-friendly interfaces and positive reinforcement, could lead to significant improvements in the effectiveness of security screening processes.

#### 4.4 Specific Objective two: The effect of screening on the behavioral attitude component

In the study respondents were involved in answering questions that sought to answer the effect of screening on the behavioral attitude component. The results of the study are presented below.

**Table 4. 6: The effect of security screening on behavioral attitude component.**

| Statement  | SD |     | D  |      | NS |      | A  |      | SA |      | Total |     | Mean | Std. Deviation |
|--|----|-----|----|------|----|------|----|------|----|------|-------|-----|------|----------------|
|  | F  | %   | F  | %    | F  | %    | F  | %    | F  | %    | F     | %   |      |                |
| I am willing to comply with security screening procedures when entering vital installations. | 7  | 5.5 | 9  | 7.1  | 8  | 6.3  | 59 | 46.5 | 44 | 34.6 | 127   | 100 | 3.97 | 1.09           |
| I follow all security screening protocols consistently                                       | 10 | 7.9 | 20 | 15.7 | 4  | 3.1  | 57 | 44.9 | 36 | 28.3 | 127   | 100 | 3.70 | 1.25           |
| I take the necessary actions during security screening as instructed by security personnel   | 5  | 3.9 | 11 | 8.7  | 6  | 4.7  | 67 | 52.8 | 38 | 29.9 | 127   | 100 | 3.96 | 1.02           |
| I have commitment to cooperating with security personnel during the screening process.       | 4  | 3.1 | 15 | 11.8 | 18 | 14.2 | 43 | 33.9 | 47 | 37.0 | 127   | 100 | 3.89 | 1.12           |
| I usually follow security instructions without hesitation                                    | 5  | 3.9 | 10 | 7.9  | 15 | 11.8 | 45 | 35.4 | 52 | 40.9 | 127   | 100 | 4.01 | 1.09           |

|  |   |     |    |     |    |      |    |      |    |      |     |     |      |      |
|--|---|-----|----|-----|----|------|----|------|----|------|-----|-----|------|------|
| during screening   |   |     |    |     |    |      |    |      |    |      |     |     |      |      |
| I consistently adhere to security screening guidelines at vital installations. | 3 | 3.9 | 10 | 7.9 | 20 | 15.7 | 51 | 40.2 | 41 | 32.3 | 127 | 100 | 3.88 | 1.07 |
| I have willingness to complete the security screening process efficiently      | 2 | 1.6 | 10 | 7.9 | 16 | 12.6 | 63 | 49.6 | 36 | 28.3 | 127 | 100 | 3.95 | .93  |
| My intentions to go through a security system are always good                  | 1 | 0.8 | 4  | 3.1 | 16 | 12.6 | 54 | 42.5 | 52 | 40.9 | 127 | 100 | 4.19 | .83  |

**Source: Primary Data**

From the findings, respondents’ willingness to comply with security screening procedures had 81.1% of respondents who agreed, mean of 3.97 with a standard deviation of 1.09. From the table of results above, a substantial majority, expressed a strong agreement with the notion of complying with security screening procedures when entering vital installations. This indicates a commendable level of cooperation and a positive attitude among respondents toward adhering to security measures, fostering a safer environment within these installations.

From interview results, it was revealed that a significant majority of respondents expressed a willingness to comply with security screening procedures at vital installation entrances. One respondent explained,

*“...When entering vital installations, I am willing to comply with security screening procedures because it contributes to the overall safety of the facility and everyone inside and its necessary to abide to all instructions...”*

This information implies that the respondents recognize the importance of these procedures in ensuring the security and well-being of the vital installations, aligning with the broader sentiment of the majority in the study.

When respondents were asked regarding the adherence to security screening protocols, it was found out that a substantial percentage 73.2% consistently follows all security screening protocols as per the statement to follow all security screening protocols consistently. With a mean of 3.70 with a standard deviation of 1.25. This suggests a strong commitment among respondents to consistently follow established security protocols during screening processes

Respondents also expressed their views concerning taking necessary actions as instructed by security personnel, there was a mean of 3.96 with a standard deviation of 1.02. An impressive 82.7% agreed that they take the necessary actions during security screening as instructed by security personnel. The low standard deviation suggests a high level of consistency and willingness to follow instructions, emphasizing a cooperative and disciplined approach during the screening process.

On commitment to cooperating with security personnel during the screening process, majority of respondents elicited agreement from a substantial with 70.9%. This had a mean of 3.89 and a standard deviation of 1.12. This implies that a significant portion of respondents was committed to cooperating with security personnel, showcasing a positive and cooperative mindset during security screening.

Interview findings highlighted a prevailing commitment among respondents to cooperate with security personnel during screening. One participant expressed,

*“...It's more than just following rules; it's about understanding that cooperation enhances the security process. There's a commitment to making the process smoother, not just for personal benefit but for the collective security of the entire environment...”*

Hence this suggests that the commitment goes beyond individual actions, emphasizing a collective dedication to the efficiency of security screening.

From the finding of respondents' following of security instructions without hesitation, there was a mean of 4.0157, with a standard deviation of 1.09823. There was a significant number of respondents of 76.3%, with the majority agreeing that they usually follow security instructions without hesitation during screening. This suggests a high level of responsiveness and a lack of hesitation among respondents, contributing to the smooth execution of security protocols and procedures.

The study also found out respondents' consistent adherence to security screening guidelines, there was a mean of 3.88, and a standard deviation of 1.07. The considerable agreement of majority 72.5% had consistent adherence to security screening guidelines underscores a commitment to maintaining a standardized approach. This contributes to the reliability and predictability of security procedures at vital installations.

Regarding respondents' willingness to complete the security screening process efficiently, there was a mean of 3.95 with a standard deviation of .93. A notable 77.9% express a willingness to complete the security screening process efficiently. The low standard deviation indicates a consistent willingness among respondents to optimize the efficiency of the screening process, suggesting a desire for a streamlined and effective security experience.

People expressed their views on their intentions to go through a security system if they are always good. There was a mean of 4.19 with a standard deviation of 0.83. A significant majority with 83.4% agreed that their intentions to go through a security system are always good. The low standard deviation reflects a consistent positive intent among respondents, indicating a high level of trust and cooperation with security measures, contributing to a positive and secure atmosphere.

From what people shared in the interviews, it turned out that most of them agree that when they go through a security system, they're doing it with good intentions. One person put it like this:

*"...I always approach security systems with good intentions because I know they're crucial for keeping everyone safe. It's not just about me following the rules; it's about making sure the whole place is secure..."*

This suggests that the majority of folks in the interviews see security measures as more than just rules but as a way to work together for safety in vital installations.

**Table 4. 7.: The relationship between screening and behavioral component**

| Model |                    | Unstandardized coefficients |                | Standardized coefficient | Significance testing |      | Collinearity statistics |      |
|-------|--------------------|-----------------------------|----------------|--------------------------|----------------------|------|-------------------------|------|
|       |                    | B                           | Standard error | B                        | t                    | Sig. | Tolerance               | VIF  |
| 1     | Intercept          | 1.77                        | .361           |                          | 4.91                 | .000 |                         |      |
| 2     | Security screening | .338                        | .108           | .269                     | 3.12                 | .002 | 1.00                    | 1.00 |

**Source: Primary Data**

(N.B Adjusted R square in this model is 0.065).

The regression analysis shows the relationship between security screening and the behavioral component of attitudes. Here's a breakdown of the key components:

- **Unstandardized Coefficients (B):** A one-unit increase in security screening is associated with a 0.338 increase in the behavioral component.
- **Standardized Coefficients (Beta):** The standardized coefficient of 0.269 indicates a moderate positive relationship between security screening and the behavioral component.
- **t-statistic and Sig.:** The t-statistic of 3.125 and a significance level of 0.002 suggest a significant relationship.
- **Collinearity Statistics:** The VIF of 1.000 indicates no multicollinearity.

### **Interpretation of the Results**

Based on these results, we can conclude that:

Security screening has a significant positive relationship with the behavioural component of attitudes.

A higher level of security screening is associated with higher levels of the behavioral component.

The relationship is moderate, as indicated by the standardized coefficient of 0.269.

### **Understanding the Behavioral Component**

Based on the scale items for the behavioral component, it is seen that the scale measures behavioral intentions and actions related to security screening. The items focus on compliance, cooperation, and following instructions.

### **Interpreting the Positive Coefficient**

*Given that the regression analysis showed a positive coefficient for security screening on the behavioral component, it suggests that: Individuals who undergo security screening are more likely to exhibit positive behaviors related to the screening process. The process of undergoing*

*security screening itself may contribute to increased willingness to comply, cooperate, and follow instructions.*

From results in table above, it's indicated that there is a positive significant relationship between behavioral component and security screening as explained by the beta coefficient of (beta = .269,  $p < .01$ ). The results show that a unit increase in behavioral component improves security screening by 0.269. Overall, the adjusted R square of 0.065 % means that screening explains 6.5% of the variance behavioral attitudes. This implies that in a situation where users of security checkpoints have behavioral intentions on screening action intentions towards screening using technology then the level of level of security screening is influenced to a larger extent.

This relationship suggests that when users at security checkpoints demonstrate strong behavioral intentions meaning they are committed to using the technology properly and consistently the overall efficiency and thoroughness of security screening are positively impacted. Behavioral components, such as the willingness to follow protocols and actively engage with the screening technology, are crucial for achieving optimal security outcomes. For security installations, this finding highlights the need to encourage and reinforce positive behavioral intentions among users. By promoting consistent and correct use of the technology through training, reminders, and supportive environments, security facilities can enhance the effectiveness of their screening processes, thereby contributing to a more secure and reliable operational framework.

Since this scale measures compliance, an improvement in behavioral attitudes towards the use of technology would lead to an improvement in security screening at major security installations especially at Total. The results show the importance of users' behavioral responses such as their actual practices and consistent use of technology in ensuring effective security screening. The implication is that even small improvements in behavioral attitudes could lead to measurable enhancements in security processes, contributing to overall security outcomes. The findings underscore the necessity for security installations, particularly in Uganda, to not only focus on fostering positive cognitive and affective attitudes but also to ensure that users develop and maintain appropriate behavioral practices when interacting with technology. By encouraging consistent and correct usage of technology, security installations achieve incremental improvements in their screening processes, thereby enhancing the overall security framework.

## 4.2 Specific objective 3: Screening and cognitive attitude

To examine the impact of screening on the cognitive attitude of the respondents, the means and standard deviations of the variables for cognitive component variable were calculated. The results of this exercise are presented in the table below.

**Table 4. 8: The role of security screening on cognitive attitude component**

| Statement   | SD |      | D  |      | NS |      | A  |      | SA |      | Total |         | Mean | Std. Deviation |
|---|----|------|----|------|----|------|----|------|----|------|-------|---------|------|----------------|
|   | F  | %    | F  | %    | F  | %    | F  | %    | F  | %    | F     | %       |      |                |
| I have a good understanding of security screening procedures involving metal detectors and walk-through machines.                     | 15 | 11.8 | 11 | 8.7  | 20 | 15.7 | 52 | 40.9 | 29 | 22.8 | 127   | 100.0   | 3.54 | 1.26           |
| I am knowledgeable about the importance of security screening at vital installation entrances.  | 2  | 1.6  | 3  | 2.4  | 10 | 7.6  | 62 | 48.8 | 50 | 39.4 | 127   | 100.0   | 4.22 | .81            |
| I perceive security screening with metal detectors and walk-through machines as necessary for ensuring safety at vital installations. | 1  | 0.8  | 3  | 2.4  | 6  | 4.7  | 61 | 48.0 | 56 | 44.1 | 127   | 100.0   | 4.32 | .74            |
| Security screening machines are safe to every person walking through  | 12 | 9.4  | 44 | 34.6 | 12 | 9.4  | 30 | 23.6 | 29 | 22.8 | 127   | 100.0   | 3.15 | 1.36           |
| I have a clear understanding of the security measures involved in screening procedures at vital installation entrances.               | 23 | 18.1 | 22 | 17.3 | 23 | 18.1 | 28 | 22.0 | 31 | 24.4 | 127   | 100.038 | 3.17 | 1.44           |
| I believe that security screening is an   | 38 | 29.9 | 12 | 9.4  | 5  | 3.9  | 43 | 33.9 | 29 | 22.8 | 127   | 100.0   | 3.10 | 1.59           |

|  |    |      |    |      |    |      |    |      |    |      |     |       |      |      |
|--|----|------|----|------|----|------|----|------|----|------|-----|-------|------|------|
| effective way to prevent unauthorized access to vital installation   |    |      |    |      |    |      |    |      |    |      |     |       |      |      |
| I believe security screening is meant for the safety of all  | 15 | 11.8 | 6  | 4.7  | 5  | 3.9  | 49 | 38.6 | 52 | 40.9 | 127 | 100.0 | 3.92 | 1.30 |
| I believe there are no hidden agendas on security screening using metal detectors and walk through machines                            | 20 | 15.7 | 16 | 12.6 | 22 | 17.3 | 37 | 29.1 | 32 | 25.2 | 127 | 100.0 | 3.35 | 1.39 |
| I generally have a positive belief regarding the use of metal detectors and walk-through machines for security screening are positive. | 12 | 9.4  | 11 | 8.7  | 24 | 18.9 | 49 | 38.6 | 31 | 24.4 | 127 | 100.0 | 3.59 | 1.21 |
| I have good knowledge on how the security screening machines operates  | 12 | 9.4  | 11 | 8.7  | 11 | 8.7  | 51 | 40.2 | 42 | 33.1 | 127 | 100.0 | 3.78 | 1.25 |

The findings from the table reveal that a significant majority, constituting 63.7%, agreed that they possessed a solid understanding of security screening procedures involving metal detectors and walk-through machines. This is reflected in the mean score of 3.54, indicating a moderate level of agreement. However, the standard deviation of 1.26 suggests some variability in respondents' perceptions, hinting at a diversity of understanding within the surveyed group. This implies that while a substantial portion felt confident in their comprehension, there was individuals with differing levels of understanding or uncertainty.

The majority of respondents, 88.2% agreed that they had knowledge about the importance of security screening at vital installation entrances. These had a higher mean of 4.22 and a low standard deviation of 0.81565, this signifies that majority strongly agreed or agreed that they were knowledgeable about the significance of security screening. This suggests a high level of

consensus among respondents, indicating a shared an understanding of the importance of security screening at vital installations.

During the interview, it was revealed that people have knowledge about the importance of security screening at vital installation entrances. As one of the respondents explained,

*“...I believe it's crucial to understand the significance of security screening at vital installation entrances because it serves as the first line of defense against potential threats. It's not just about routine checks; it's about safeguarding the integrity and safety of important locations...”*

This implies that a shared awareness existed among participants regarding the pivotal role that security screening plays in ensuring the protection and well-being of vital installations.

The majority 92.1% of respondents expressed a strong consensus regarding the necessity of security screening with metal detectors and walk-through machines for ensuring safety at vital installations. With a mean of 4.32 and a low standard deviation of 0.74, the majority strongly agreed or agreed with this statement. This unanimity implied a collective perception among participants that security screening is an essential element for ensuring safety at vital installations.

During the study, it was revealed that a substantial majority perceive security screening with metal detectors and walkthrough machines as crucial for ensuring safety at vital installations. Delving into participant insights, one respondent provided a detailed perspective,

*“...the integration of metal detectors and walkthrough machines creates a comprehensive shield, effectively identifying potential threats and deterring malicious intent. It goes beyond just a routine check; it's a proactive approach to ensuring the highest level of security for everyone within the installation...”*

The above information suggests that there is a nuanced appreciation for the multifaceted role that security screening plays in enhancing safety at vital installations.

In contrast, opinions regarding the safety of security screening machines for every person walking through exhibit a more mixed response. With 46.4% of respondents agreeing and the

mean of 3.15 and a moderate standard deviation of 1.36. This suggests a diverse range of opinions within the surveyed group. This implies that while some respondents expressed concerns or disagreement about the safety of these machines, others hold a more positive view.

Respondents were also asked about having a clear understanding of the security measures involved in screening procedures at vital installation entrances. Their responses elicit a moderate level of agreement with 46.4% and mean of 3.17. The moderate standard deviation of 1.44 indicates some variability in responses. This suggests that while there was a general agreement on understanding security measures, there was also diversity in the extent of that understanding among participants.

Moving on to the effectiveness of security screening, respondents exhibited mixed opinions regarding its ability to prevent unauthorized access to vital installations. Although the majority agreed with 56.7%, the mean of 3.10 and a moderate standard deviation of 1.59 point to varying perspectives within the surveyed group. This implies a nuanced view among respondents, with some expressing agreement but others indicating uncertainty or disagreement about the effectiveness of security screening in preventing unauthorized access.

Concerning the belief that security screening is meant for the safety of all, there is a strong consensus among respondents, 79.5% of respondents agreed with a mean of 3.92 and a moderate standard deviation of 1.30. This suggests a widespread belief within the surveyed group that security screening is designed to ensure the safety of all individuals. The interview results also highlighted a prevailing belief within the majority that security screening is fundamentally oriented towards the safety of all individuals within vital installations. A participant articulated this consensus by stating,

*“...Security screening is a collective responsibility for our well-being. It's not only about my safety but about creating a secure environment for everyone. This shared understanding fosters a sense of community security, emphasizing the broader purpose of these screening procedures...”*

This evidence implies that the collective well-being is considered paramount, reflecting a shared understanding of the broader purpose of security measures.

On the topic of hidden agendas in security screening using metal detectors and walk-through machines, respondents also exhibited mixed responses. Majority 54.3% agreed with mean of 3.3543 and a moderate standard deviation of 1.39 indicates a level of agreement on average, but with some variation in opinions. This implies that while there is some agreement, respondents also hold diverse views about the presence of hidden agendas in security screening. Regarding the general belief in the positive use of metal detectors and walk-through machines for security screening, respondents expressed a moderate level of agreement with 63% agreeing and a mean of 3.59. The moderate standard deviation of 1.21 suggests variability in responses, indicating that while there was a general positive belief, this means differing degrees of positivity among participants. When respondents were asked about having knowledge of how security screening machines operate, 73.3% agreed, there is a moderate level of agreement with a mean of 3.78. The standard deviation of 1.25 suggests some variability in responses, implying that while there was a general agreement on knowledge of machine operations, participants exhibit diverse levels of understanding regarding the issue.

**Regression analysis:**

A regression analysis was carried out to further examine the above relationships with screening as the independent variable, and cognitive attitudes as the dependent variable. The results are presented in the table below:

**Table 4. 9: The relationship between screening and cognitive component**

| Model |                    | Unstandardized coefficients |                | Standardized coefficient | Significance testing |      | Collinearity statistics |      |
|-------|--------------------|-----------------------------|----------------|--------------------------|----------------------|------|-------------------------|------|
|       |                    | B                           | Standard error | B                        | t                    | Sig. | Tolerance               | VIF  |
| 1     | Intercept          | .982                        | .294           |                          | 3.34                 | .001 |                         |      |
| 2     | Security screening | .800                        | .088           | .630                     | 9.08                 | .000 | 1.00                    | 1.00 |

Source: Primary Data

**(N.B Adjusted R square in this model is .393)**

A scrutiny of the key components in the table above shows that:

**Unstandardized Coefficients (B):** A one-unit increase in security screening is associated with a 0.800 increase in the cognitive component.

**Standardized Coefficients (Beta):** The standardized coefficient of 0.630 indicates a moderately strong positive relationship between security screening and the cognitive component.

**t-statistic and Sig.:** The t-statistic of 9.081 and a significance level of 0.000 suggest a highly significant relationship.

**Collinearity Statistics:** The VIF of 1.000 indicates no multicollinearity.

### **Interpretation of the Results**

Based on these results, we can conclude that:

Security screening has a significant positive relationship with the cognitive component of attitudes.

A higher level of security screening is associated with higher levels of the cognitive component.

The relationship is moderately strong, as indicated by the standardized coefficient of 0.630.

### **Understanding the Cognitive Component**

An examination of the scale items for the cognitive component shows that the scale measures knowledge, understanding, and perceptions related to security screening procedures. The items focus on understanding the procedures, perceiving them as necessary, and having positive beliefs about their effectiveness and safety.

### **Interpreting the Positive Coefficient**

Given that the regression analysis showed a positive coefficient for security screening on the cognitive component, it suggests that:

Individuals who undergo security screening are more likely to have a positive understanding and perception of the procedures.

The process of undergoing security screening itself may contribute to increased knowledge and positive beliefs.

Overall, the positive coefficient suggests that security screening has a significant impact on individuals' cognitive attitudes. It appears that the process itself contributes to increased knowledge and positive perceptions about security screening procedures.

The findings from the regression analysis explain the pivotal role that cognitive attitudes toward the use of technology play in enhancing security screening processes at major security installations. Specifically, the adjusted R Square value of 0.393 indicates that screening explains approximately 39.3% of the variance in cognitive attitudes. This substantial percentage highlights the critical importance of fostering positive cognitive attitudes towards technology among security personnel and other users of the facility.

## CHAPTER FIVE

### DISCUSSION OF FINDINGS

#### 5.1. INTRODUCTION

The study examined the attitudes people form after undergoing screening at security checks at Total Energies E & P Nwoya district. The research findings are discussed in regard to the three objectives of the study which were;

- a) To measure and analyze the affective attitudes formed by individuals after undergoing security screening through self-report measures
- b) To measure and analyze the behavioral attitudes developed by individuals as a result of security screening through self-report measures.
- c) To measure and analyze cognitive attitudes formed by individuals after undergoing security screening through self-report measures

#### 5.2. SUMMERY OF FINDINGS

The findings are summarized as per objective.

**Affective Component:**

**Relationship:** Security screening is associated with both positive and negative emotions.

**Mixed emotions:** Individuals may experience a combination of anxiety, frustration, and positive feelings like safety and trust.

**Further research:** Explore the specific factors that influence the balance of positive and negative emotions in response to security screening.

**Behavioral Component:**

**Relationship:** Security screening is associated with increased willingness to comply, cooperate, and follow instructions.

**Behavioral change:** The process itself may contribute to positive behavioral changes.

**Further research:** Investigate the long-term effects of security screening on behavioral attitudes and whether these effects persist over time.

### **Cognitive Component:**

**Positive relationship:** Security screening is associated with increased knowledge, understanding, and positive perceptions.

**Educational effect:** The process itself may contribute to improved understanding of security procedures.

**Further research:** Examine how the specific design and implementation of security screening procedures influence cognitive attitudes.

### **Implications of the Study**

Security screening can influence individuals' attitudes in multiple ways.

Positive and negative emotions: The affective component suggests that security screening can evoke a mix of emotions.

Increased knowledge and understanding: The cognitive component highlights the educational potential of security screening.

Positive behavioral changes: The behavioral component indicates that security screening can positively influence individuals' willingness to comply and cooperate.

### **Recommendations**

**Tailor security procedures:** Consider strategies to minimize negative emotions and enhance positive experiences.

**Provide information:** Offer clear and concise information about security procedures to increase understanding and reduce anxiety.

**Train personnel:** Ensure that security personnel are trained in effective communication and interpersonal skills to foster positive interactions.

**Evaluate effectiveness:** Regularly assess the effectiveness of security screening procedures and make necessary adjustments.

**Make every one goes through security checks.**

By addressing these areas, future research can provide a more comprehensive understanding of the psychological effects of security screening and inform the development of more effective and efficient procedures.

### **5.2.1. The role of security screening on cognitive attitude component with the use of technology on security checks.**

The first question examined role cognitive attitude component towards technology adoption on security screening with the use of technology on security checks. The research findings reveal a predominant consensus among participants regarding their understanding and recognition of the significance of security screening procedures, notably with metal detectors and walk-through machines at vital installations. While a substantial majority exhibits confidence in their comprehension and agrees on the necessity of these measures for ensuring safety, there exists diversity in opinions regarding the safety of screening machines for individuals walking through. The results suggest a nuanced perspective, as interview responses underscore a shared awareness of the crucial role of security screening in protecting vital installations. Moreover, there is a collective belief in the fundamental orientation of security screening towards the safety of all individuals within these installations, fostering a sense of community security. Nevertheless, differing viewpoints emerge on hidden agendas, the positive use of screening machines, and the depth of understanding about their operations. In essence, the findings depict a harmonious blend of agreement and diversity in respondents' perceptions of security screening measures and their broader implications.

### **5.2.2. The impact security screening on affective component with the use of technology on security checks.**

Majority of respondents' express feelings of anxiety or nervousness during the screening process, suggesting a notable emotional impact. While a substantial portion associates a sense of safety with security screening, there is considerable variability in perceptions of its effectiveness, and a majority feels inconvenienced. The interview data reveal a nuanced acceptance of inconvenience as a necessary trade-off for heightened security. Respondents generally appreciate the professionalism of security personnel, and there is a high level of trust in the screening process to prevent threats. Trust in the responsible handling of belongings during screening contributes to an overall positive perception. A substantial portion feels a personal connection to the importance of security screening, and there is notable resonance with personal values, albeit with some variability.

### **5.2.3. The effect of security screening on behavioral attitude component with the use of technology on security checks.**

There is emphasis on the participants' recognition of the significance of these measures for overall safety. A substantial higher percentage of respondents consistently follows security protocols, reflecting a strong commitment to established procedures. Respondents exhibit a positive attitude, with majority agreeing to follow security personnel's instructions, showcasing a cooperative and disciplined approach. The majority of respondents expresses a commitment to cooperate with security personnel during screenings. Additionally, a significant higher percentage of respondents adheres to security instructions without hesitation, contributing to the seamless execution of protocols. These findings collectively underscore a cooperative and positive mindset among participants, contributing to a secure environment within vital installations.

## **5.3 DISCUSSION OF FINDINGS**

### **5.3.1. The role of security screening on cognitive attitude component with the use of Technology on Security checks.**

The discussion of the study is done in line with the literature of the study;

Understanding of security screening procedures by respondents is in line with recent studies in the field of security screening. The finding that a significant majority of individuals believe they

possess a solid understanding of procedures involving metal detectors and walk-through machines. Scholars emphasize the importance of public awareness in promoting effective security measures (Smith et al., 2021). The observed variability in perceptions aligns with research by Johnson and (Brown, 2020), who highlight the diverse cognitive processes individuals employ when assessing security measures, contributing to varied levels of confidence.

On knowledge about the importance of Security Screening, the high level of consensus regarding knowledge about the importance of security screening at vital installation entrances corresponds with the emphasis in contemporary literature on public awareness campaigns. Research by Anderson and Lee (2019) underscores the role of education in fostering collective understanding, emphasizing that a well-informed public is more likely to recognize and support the significance of security measures.

Regarding perception of necessity for security screening, scholars such as Garcia and Martinez (2022) argue that the unanimous perception among respondents about the necessity of security screening with metal detectors and walk-through machines aligns with the evolving discourse on proactive security measures. The integration of advanced screening technologies is highlighted as essential in deterring potential threats, supporting the notion presented by the interviewee regarding the comprehensive shield these measures create.

Concerns about safety and understanding of security measures, diverse opinions regarding the safety of security screening machines and the understanding of security measures find resonance in contemporary literature. Research by Brown and Smith (2023) suggests that the variation in perceptions can be attributed to factors such as prior experiences, media influence, and individual risk perception. Addressing concerns and enhancing understanding may require targeted educational initiatives.

Effectiveness of security screening in preventing unauthorized access is also in line with current literature. The nuanced view among respondents regarding the effectiveness of security screening aligns with recent discussions on the evolving nature of security threats. Studies by Wilson et al. (2020) highlight the importance of adaptive security measures and continuous

evaluation to address emerging challenges. The varying perspectives within the surveyed group may reflect the dynamic nature of security considerations and the need for flexible approaches.

### **5.3.2. The impact of security screening on affective component with the use of technology on security checks.**

The research findings provide valuable insights into the intricate dynamics of public perceptions surrounding security screening at vital installations, reflecting broader themes observed in recent literature. A consistent narrative emerges around the emotional impact of security procedures, with respondents reporting heightened feelings of anxiety and nervousness (Smith, et al 2021, Johnson et al., 2022). The substantial standard deviation in these emotional responses emphasizes the nuanced and varied nature of individual experiences, aligning with a broader scholarly understanding of the psychological toll imposed by security measures (Miller, et al 2023).

The study's exploration of safety perceptions in relation to security screening processes resonates with discussions in contemporary literature (Garcia, et al 2021). While a significant proportion of respondents feels safer, the diversity in responses, as indicated by the standard deviation, highlights the complex landscape of opinions on the efficacy of security measures (Taylor, 2023). This mirrors ongoing scholarly conversations about the need for transparent and communicative security practices to establish and maintain public trust in these procedures (Roberts et al, 2022).

Inconvenience emerges as a recurrent theme, mirroring the delicate equilibrium between security imperatives and passenger convenience discussed in recent scholarly works (Wang, 2021). The study's identification of a notable proportion of respondents feeling inconvenienced aligns with broader discussions exploring the trade-offs between personal comfort and collective safety (Lee et al, 2022). The nuanced perspective shared by one respondent further underscores the importance of fostering a thoughtful dialogue regarding the impact of security screening on passenger experiences (Fisher et al, 2023).

The positive sentiments expressed toward security personnel find resonance in the wider recognition of the influential role played by human factors in shaping perceptions of security (Reed et al, 2022). The standard deviation in perceptions of security staff professionalism

suggests varying degrees of appreciation among respondents, emphasizing the significance of consistent training and standards in the security industry (Stewart, 2023). Positive interactions with security personnel, as highlighted in the findings, align with scholarly discussions emphasizing the impact of these interactions on overall passenger experiences and perceptions of security effectiveness (Cooper, et al 2022).

The prevailing trust in the effectiveness of security screening measures aligns with recent literature emphasizing the crucial role of trust in garnering public cooperation with security protocols (Peterson, 2023). The low standard deviation in trust levels indicates a consistent confidence among respondents, reinforcing the notion that a high level of trust is fundamental to fostering a secure environment within vital installations (Turner, 2022). These findings contribute to ongoing scholarly discourse, offering valuable insights into the challenges and opportunities for refining security protocols to align with passenger expectations and concerns.

### **5.3.3. The effect of security screening on behavioral attitude component with the use of technology on security checks.**

The findings from the study underscore a commendable level of cooperation and positive attitudes among respondents regarding security screening procedures at vital installations, aligning with recent studies by other researchers. The emphasis on willingness to comply with security measures resonates with scholarly discussions on the evolving landscape of security practices, acknowledging the pivotal role public cooperation plays in enhancing overall security outcomes (Brown et al, 2021). This aligns with a growing understanding that public compliance is not merely a regulatory requirement but a collaborative effort in maintaining safety and security within critical infrastructure.

The qualitative insights gleaned from interviews provide depth to the quantitative data, revealing a shared sentiment among respondents regarding the importance of security screening procedures for the safety of everyone within vital installations. This echoes contemporary research that emphasizes the need for security measures to be perceived as meaningful and collectively beneficial, fostering a sense of shared responsibility (Turner et al., 2022). The study's findings align with literature suggesting that public perceptions and attitudes significantly influence the effectiveness of security protocols.

The attention to adherence to security screening protocols in the study is in line with recent research emphasizing the importance of consistent and standardized approaches to security measures (Clark et al, 2022). This consistency contributes to the predictability and reliability of security procedures, a key aspect highlighted in the literature for ensuring the success of security screening initiatives. It reflects a broader trend in contemporary security discussions, which increasingly recognize the need for streamlined and efficient processes to balance security and public convenience.

The positive attitudes expressed toward taking necessary actions as instructed by security personnel align with the broader understanding of human factors in security contexts (Baker and Turner, 2019). The study's findings emphasize not only individual responsibility but also the role of cooperation in the efficiency of the entire screening process. This cooperative approach aligns with contemporary literature stressing the human-centric nature of effective security practices, acknowledging the influence of human behavior on overall security outcomes.

The study's exploration of respondents' willingness to complete the security screening process efficiently and approach security systems with good intentions aligns with recent literature highlighting the importance of creating positive and user-friendly security experiences (Evans and Peterson, 2022). The consistent positive intent observed among respondents reflects a shared understanding of security measures as not just rules to follow but as integral components in ensuring the safety and well-being of everyone within vital installations.

## **5.4. Conclusion**

The following conclusions were drawn from the findings of the study in light of the specific objectives of the study.

### **5.4.1. The role of screening on cognitive attitude**

In conclusion, there is a strong consensus on the collective responsibility for safety and the overarching belief in the broader purpose of security measures highlights a shared understanding among participants. The varied responses explain the intricate nature of public opinions, signaling the importance of tailored communication strategies and a nuanced approach to security measures that address the diverse perspectives within the surveyed group.

#### **5.4.2. The impact screening on of affective component**

There is not only a high level of consistency in adhering to established security protocols but also a cooperative and disciplined approach among respondents, as evidenced by their readiness to take necessary actions as instructed by security personnel. The consistent positive intent to go through security systems reflects a high level of trust and cooperation, contributing to an overall positive and secure atmosphere.

#### **5.4.3. The effect of screening on the behavioral attitude component**

There are positive sentiments towards security personnel's professionalism, coupled with a high level of trust in the efficacy of screening processes, contribute to an overall positive perception. The sense of personal connection to the significance of security screening aligns with individual values and concerns, reflecting a multifaceted understanding of its importance.

### **5.5. Recommendations**

Based on the diverse findings presented, several recommendations emerge to enhance the effectiveness and acceptance of security screening measures:

#### **5.5.1. The role of cognitive attitude component**

Based on the diverse perceptions revealed in the study, it is recommended that security authorities adopt a targeted and comprehensive communication strategy. While a significant majority acknowledges the importance and necessity of security screening, the mixed opinions on safety, effectiveness, and hidden agendas emphasize the need for clear and transparent communication. Addressing concerns about the safety of screening machines and providing detailed information on their functionality could contribute to a more positive perception.

#### **5.5.2. The impact of affective component**

Enhance public awareness campaigns to clarify the necessity and benefits of thorough screening, as highlighted by interviewees, could contribute to a more positive perception and understanding. Furthermore, fostering a culture of continuous improvement in staff professionalism and customer service skills is crucial. It is essential to maintain a dynamic and adaptive security framework that reflects both the evolving threat landscape and the diverse perspectives and experiences of those undergoing screening.

### **5.5.3. The effect of behavioral attitude component**

Emphasize consistent adherence to established protocols and reinforce training programs that underscore the collective responsibility for security. Capitalize on the willingness to cooperate with security personnel and the demonstrated responsiveness by optimizing the efficiency of the screening process. Maintain and build upon the expressed positive intent and trust to foster a secure atmosphere. Implement targeted communication and awareness initiatives to continually reinforce these positive behaviors within the security framework.

### **5.6. Areas for Further Research.**

This study was conducted at Total Energies E & P in Nwoya district. Similar studies would be conducted in other companies throughout the country for comparison purposes; this could also help in solving problems related to security screening using with machines on vital installation entrances. The following areas are suggested for further research;

1. Technological integration in security screening.
2. Privacy concerns, ethical considerations in security screening.
4. Also since the study was carried out in an oil company, another study can be carried out in any other place like a manufacturing industry or transport company
5. Cross-cultural comparisons: Compare the effects of security screening across different cultural contexts.
6. Individual differences: Explore how individual factors (e.g., personality, age, gender) influence responses to security screening.
7. Technology and innovation: Examine the impact of new technologies and innovations in security screening on attitudes and behaviors.

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**APPENDIX i: Questionnaire for respondents.**

**Dear respondent,**

I am requesting you to fill this questionnaire, which is aimed at collecting data on the attitudes of people towards the use of Technology in Security checks at Total Energies E & P Nwoya district. You have been selected to be one of our respondents in this study. The information provided will be treated with strict confidentiality and shall not be used for any other purpose except for academic purposes. Thank you very much for your cooperation.

**Respondents' background information (provide a tick the on your right option).**

| No | Question                    | Response codes   |
|----|-----------------------------|--|
| 1  | Gender of respondent        | 1. Male<br>2. Female   |
| 2  | Respondent's age            | 1. Below 20 years<br>2. 20-30<br>3. 31-40<br>4. 41-50<br>5. >50                                      |
| 3  | Highest education level     | 1. Certificate<br>2. Diploma<br>3. Bachelors' degree<br>4. Master's degree<br>5. Others specify..... |
| 4  | Period in this organization | 1. 0-3<br>2. 4-6<br>3. 7-10<br>4. 11-15<br>5. >15  |
| 5  | Marital status              | 1. Single<br>2. Married<br>3. Separated<br>4. Divorced<br>5. Widow/                                  |

**SECTION A: Security screening on Cognitive attitude component towards the use of Technology in Security checks at Total Energies E & P Nwoya district**

For the following questions please tick the number that represents your view towards the following statements using the scale of 1 to 5 where; 1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, 5= Strongly Agree

|      |  |   |   |   |   |   |
|------|--|---|---|---|---|---|
| CA01 | I have a good understanding of security screening procedures involving metal detectors and walk-through machines.                      | 1 | 2 | 3 | 4 | 5 |
| CA02 | I am knowledgeable about the importance of security screening at vital installation entrances.   | 1 | 2 | 3 | 4 | 5 |
| CA03 | I perceive security screening with metal detectors and walk-through machines as necessary for ensuring safety at vital installations.  | 1 | 2 | 3 | 4 | 5 |
| CA04 | Security screening machines are safe to every person walking through   | 1 | 2 | 3 | 4 | 5 |
| CA05 | I have a clear understanding of the security measures involved in screening procedures at vital installation entrances.                | 1 | 2 | 3 | 4 | 5 |
| CA06 | I believe that security screening is an effective way to prevent unauthorized access to vital installations                            | 1 | 2 | 3 | 4 | 5 |
| CA07 | I believe security screening is meant for the safety of all  | 1 | 2 | 3 | 4 | 5 |
| CA08 | I believe there are no hidden agendas on security screening using metal detectors and walk through machines                            | 1 | 2 | 3 | 4 | 5 |
| CA09 | I generally have a positive belief regarding the use of metal detectors and walk-through machines for security screening are positive. | 1 | 2 | 3 | 4 | 5 |
| CA10 | I have good knowledge on how the security screening machines operates  | 1 | 2 | 3 | 4 | 5 |

**SECTION B: *Security screening on affective component towards the use of Technology in Security checks at Total Energies E & P Nwoya district.***

Please read each carefully and rate yourself using the scale below in the column provided to the right of each statement.

**SD – Strongly Disagree; D – Disagree; N – Neutral; A – Agree; SA – Strongly Agree**

|      | <b>The following is true at security points</b>   | <b>SD</b> | <b>D</b> | <b>N</b> | <b>A</b> | <b>SA</b> |
|------|---|-----------|----------|----------|----------|-----------|
| AC01 | When going through security screening, I often feel anxious or nervous.                                 | 1         | 2        | 3        | 4        | 5         |
| AC02 | The security screening process at vital installations makes me feel safer.                              | 1         | 2        | 3        | 4        | 5         |
| CA03 | Security screening procedures at vital installations often make me feel inconvenienced.                 | 1         | 2        | 3        | 4        | 5         |
| CA04 | I have positive feelings about the staff who conduct security screening at vital installations.         | 1         | 2        | 3        | 4        | 5         |
| CA05 | I trust that the security screening process is effective in preventing threats at vital installations.  | 1         | 2        | 3        | 4        | 5         |
| CA06 | I like the professionalism exhibited by the security personnel during the screening process.            | 1         | 2        | 3        | 4        | 5         |
| CA07 | My previous experiences with security screening at vital installations have been generally positive.    | 1         | 2        | 3        | 4        | 5         |
| CA08 | I trust that my belongings are handled responsibly during the security screening process.               | 1         | 2        | 3        | 4        | 5         |
| CA09 | I feel a sense of personal connection with the importance of security screening at vital installations. | 1         | 2        | 3        | 4        | 5         |
| CA10 | The security screening process resonates with my personal values and concerns.                          | 1         | 2        | 3        | 4        | 5         |

**SECTION C: Security screening on behavioral component towards the use of Technology in Security checks at Total Energies E & P Nwoya district**

Please read each carefully and rate yourself using the scale below in the column provided to the right of each statement.

**SD – Strongly Disagree; D – Disagree; N – Neutral; A – Agree; SA – Strongly Agree**

|      | <b>The following is true in this organization</b>  | <b>SD</b> | <b>D</b> | <b>N</b> | <b>A</b> | <b>SA</b> |
|------|--|-----------|----------|----------|----------|-----------|
| BC01 | I am willing to comply with security screening procedures when entering vital installations. |           |          |          |          |           |
| BC02 | I follow all security screening protocols consistently                                       |           |          |          |          |           |
| BC03 | I take the necessary actions during security screening as instructed by security personnel   |           |          |          |          |           |
| BC04 | I have commitment to cooperating with security personnel during the screening process.       |           |          |          |          |           |
| BC05 | I usually follow security instructions without hesitation during screening                   |           |          |          |          |           |
| BC06 | I consistently adhere to security screening guidelines at vital installations.               |           |          |          |          |           |
| BC07 | I have willingness to complete the security screening process efficiently                    |           |          |          |          |           |
| BC08 | My intentions to go through a security system are always good                                |           |          |          |          |           |

**SECTION C: SECURITY SCREENING**

Please indicate the extent to which you agree with each of the following statements by using the following scale: **1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.**”

|      |  |   |   |   |   |   |
|------|--|---|---|---|---|---|
| SS01 | Security screening with metal detectors and walk-through machines effectively detects prohibited items.                            | 1 | 2 | 3 | 4 | 5 |
| SS02 | I believe that security screening procedures have a low error rate in identifying security threats.                                | 1 | 2 | 3 | 4 | 5 |
| SS03 | The security screening process using metal detectors and walk-through machines is efficient and does not cause unnecessary delays. | 1 | 2 | 3 | 4 | 5 |
| SS04 | I find that security screening procedures at vital installations are carried out in a timely and efficient manner.                 | 1 | 2 | 3 | 4 | 5 |
| SS05 | Security screening with metal detectors and walk-through machines efficiently processes a large number of individuals.             | 1 | 2 | 3 | 4 | 5 |
| SS06 | I believe that a significant number of individuals can be screened quickly and effectively using these security measures.          | 1 | 2 | 3 | 4 | 5 |
| SS07 | I believe that security screening procedures are sensitive enough to detect even small or concealed objects.                       | 1 | 2 | 3 | 4 | 5 |
| SS08 | The security screening process is consistent in its application, ensuring that everyone is screened equally.                       | 1 | 2 | 3 | 4 | 5 |
| SS09 | The presence of metal detectors and walk-through machines acts as a deterrent to potential security threats.                       | 1 | 2 | 3 | 4 | 5 |
| SS10 | There is clear and helpful feedback from security personnel during the screening process.  | 1 | 2 | 3 | 4 | 5 |

**Appendix ii. Interview guide for top managers**

**Dear respondent,**

I am requesting you to participate in answering this interview, which is aimed at collecting data on the attitudes of people towards the use of Technology in Security checks at Total Energies E & P Nwoya district. You have been selected to be one of our respondents in this study. The information provided will be treated with strict confidentiality and shall not be used for any other purpose except for academic purposes. Thank you very much for your co-operation.

In your own opinion how do people’s perceptions influence security screenings at check points?

.....  
.....

Explain how people’s beliefs influence security screenings at check points?

.....  
.....

How does one’s knowledge influence security screening at check points?

.....  
.....

In your own opinion how do people’s emotions influence security screenings at check points?

.....  
.....

Explain how people’s subjective reactions (trust and like) influence security screenings at check points?

.....  
.....

In your own opinion, explain how people’s behavioral intentions influence security screenings at check points?

.....  
.....

Explain how people’s actions intentions influence security screenings at check points?

.....  
.....