AADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

THE EFFECT OF SIMULATION BASED TRAINING ON ARMY PERFORMANCE THE CASE OF AWASH COMBAT TECHNIQUE SCHOOL

By: GIRMA FUJAGA

A THESIS SUBMITTED TO THE DEPARTMENT OF MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ART IN HUMAN RESOURCE MANAGEMENT

ADVISOR

FESSEHA AFEWERK (PHD)

June, 2022

Addis Ababa, Ethiopia

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DECLARATION

I, Girma Fujaga, approve that it is my original study, organized under the direction and supervision of Fesseha Afework (phd). Every source has been clearly cited and acknowledged.

GIRMA FUJAGA _____ _____

Signature **Date**

LETTER OF CERTIFICATION

This is to certify that Girma Fujaga has done this original study on the topic: the effect of simulation based training on army performance the case of awash combat technique school under my supervision.

_____	_____	_____
Fesseha Afework (phd)	Signature	Date

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APPROVED BY BOARD OF EXAMINERS

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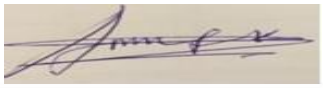
Afework Getachew Kassa,(PhD)	
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LIST OF ACRONYMS AND ABBREVIATION

FDRE	Federal Democratic Republic of Ethiopia
HR	Human Resource
HRM	Human Resource Management
MOND	Ministry of National Defense
SPSS	Statically Package Software System
JTMD	JOINT Training Main Department
NCO	Non-Commissioned Officer
APC	Armoured Personnel Carriers
SBT	Simulation-Based Training
TP	Training Policy
TM	Training Method
AP	Army Performance
SDAG	Strongly Disagree
DAG	Disagree
N	Neutral
AG	Agree
SAG	Strongly Agree

ABSTRACT

The purpose of this particular study was to assess the effect of simulation-based training on army performance in awash combat technique school. The research design is descriptive and causal that explains the causal relationship between SBT and army performance. The study used mixed approaches for the survey. A cross-sectional survey was conducted, and both primary and secondary data were collected using interviews, questionnaires, and document review. The sample respondents were identified using a stratified sampling technique. On the other hand, the interviewed respondents were selected using the purposive/judgmental method to make the data more complete. Both descriptive and inferential statistics were generated using a statistical tool (SPSS-Version 20). The findings show that Army performance has a positive correlation with training policy, Simulation-based training, and Training method. On the other hand, the result of multiple regression analysis shows that the aggregate result of training policy, SBT, and training method significantly affect the total variability of army performance. Based on the findings the study concluded that SBT has a positive effect on army performance. Finally, the study recommended the top management's role for SBT, the types of training provided using the simulator, and negative feelings about SBT.

Key words: simulation-based training, army performance, training policy, training method

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Soar, et al (2010) expressed that simulation-based training is one of the crucial elements in order to change theoretical procedures and knowledge into practice. This training is very important in complex situations, such as military and clinical training.

Current studies showed that simulation-based training advances trainees' knowledge, operational skill, decision-making skill, communication skills, and increase the satisfaction of employees, moreover Simulation-based training is an appropriate training method used to incorporate realistic and complex military situations in a non-toxic environment, which permits army members to improve their knowledge and operational skills.

According to Jeffries & Paranhos, (2007) imitating Simulators as a teaching aid have been mostly used with small groups of trainees in a classroom in order to link theory and practice. It has been considered an excellent learning tool to enhance satisfaction with the learning experience, escalate self-confidence, and enhance skill performance.

According to Hovancsek, et al (2009) training simulators demand has been increased in different industries. It is gaining acceptance by different defence organizations as it delivers the advantage of enhancing operational effectiveness while reducing cost. Kai Yao and Shaoluo Huang(2020) stated that different countries have been beneficiary of simulation training, which is widely used and has achieved the most remarkable result.

It has been a few years since the Ethiopian Ministry of Defense started simulation-based training. Different training centers set up at various levels to achieve the organizational mission. These capacity-building centers are constantly monitored and equipped with the latest technology, and various training is currently being supported by simulators. For instance, Air Force Training centers, Military Technical Training Schools, and Strategic Academies are using simulators for training.

In the military education and training sector, training plays an important role in fulfilling objectives and minimizing the risk of life. That is why the Ethiopian Defence Forces Training Centers are often trained in the principle that ‘‘sweat saves blood’’.

Awash combat technique school is one of the training centers under the joint training main department which uses simulators for training purposes to create technically skilled mechanized crews and crew leader non-commissioned officers/NCOs/ for the mechanized and motorized operational units. Since these simulators are imported into large foreign exchanges, they have not been studied for their effects on army performance. The purpose of the study is to identify the effect of Simulation-Based Training on army performance at Awash Combat Technique School.

1.2 BACKGROUND OF THE ORGANIZATION

Armed forces strictly obey hierarchical organization, where soldiers are required to follow orders. Since a Military mission requires a high level of care, physical fitness, forecasting skills, leadership and decision-making skills, technical skills to use and repair weapons, and so on. so it is necessary to develop training centers in order to address these needs. Based on this sense, the Ethiopian Ministry of Defense has opened several training institutes and is working on capacity building tasks.

In addition to engineering college and the Air Force training centers, there are various military training institutes under the umbrellas of the Joint Training main Department. These include command and Staff College, Ethiopian Military Academy, Technical Training centers such as Major general Mulugeta Bulli poly Technique College; Awash combat technique School and so on.

Awash combat Technique School which we will cover in this study is the army mechanized and motorized school of the defense force. The School as a formal institution was established in 1980. The key mission of this school is to create technically skilled machine gun crews and crew leader NCOs for the mechanized and motorized operational units. In addition, it conducts research on areas of modern mechanized and motorized training methodologies. The combat technique school has four major departments namely, the Artillery department, Anti – Aircraft department, the Tank and APC department, and the Military vehicles drivers department. The school offers courses on the respective departmental specialties mentioned

above. The school ensures the technical mastery of weapons and equipment by its trainees Most of the trainees are drawn from operational units who have already completed their basic military training and have been assigned to their respective units.

1.3 STATEMENT OF THE PROBLEM

Richard and Holten (2001) described training and development as it is a process of developing skills, providing adequate information and knowledge about specific tasks, and enabling employees to work effectively and efficiently. Mahapatro (2010) described that the training creativities can change the organizations by enhancing skills to employees; moreover, it can create job satisfaction, and this leads to organizational performance.

Military training differs from other professional training by its emphasis on discipline. It is a tool to ensure the army's physical and mental readiness to carry out the mission given by the constitution as individuals and as a team. Jason (2012) Explained that armed forces must pass through training to carry out their assigned duties effectively and efficiently.

Different authors made a research-related on simulation-based training, Samah and Howaida (2016) tried to identify the Effect of Simulation Training on Nurses and Intern Nursing Students' Skill, Confident and Satisfaction Regarding Neonatal Resuscitation. In other hand Zahra et al (2021) studied the Effect of Simulation-based Training on Athletic Performances among Female Basketball Players. These researches tried to fill the gap by discussing the effect of simulation based training in different working sectors. Jason (2012) Explained that simulation-based training allows you to create conducive environment for practicing a variety of challenges in training in an organized and coordinated manner.

The findings of such studies identified that variables like training policy, training method, and so on are positively and significantly correlated with employee performance, SBT promote skill performance, self-confidence, and satisfaction of trainees. The researchers also recommended that more study to be done on the area. So this research purposely designed to assess the effect of simulation based training on army performance in awash combat technique school.

Awash combat technique school is one of the technical schools established under Ethiopian Defence Force. There are also other training centers from basic military training to higher

military colleges and have produced many professionals and leaders. Awash combat training school has been practicing training and development using training aid simulators since 2008.

The reason why the researcher selected awash combat technique school as a study area is due to various internal documents and reports from the school, many advantages and limitations of simulation-based training are discussed associated with army training (joint Training main department 2005). The reports explained that the previous training curriculum of the simulator training was revised into 70% simulators and 30% real practice. As a result, the damage to the training vehicles, consumption of fuel, and time was significantly reduced; however, the effect on the trainee performance was not tested at this stage. Therefore, this study will assess the effect of simulator-based training on army performance.

1.4 BASIC RESEARCH QUESTIONS

1. To what extent awash combat technique school practiced SBT in line with organizational mission?
2. What factors affect simulation-based training in Awash Combat Technique School?

3. What is the effect of simulation-based training on army performance in Awash Combat Technique School?

1.5 OBJECTIVES OF THE STUDY

This study has clear general and specific objectives that are going to be achieved.

1.5.1 GENERAL OBJECTIVE OF THE STUDY

The key reason the researcher wanted to conduct this study was to identify the effect of simulation based -training on army performance at Awash Combat Technique School.

1.5.2 SPECIFIC OBJECTIVE OF THE STUDY

The specific objectives of this study will be

1. To assess if the objective of the organization linked with SBT practice or not.
2. To identify factors that influence simulation-based training
3. To Identify the contribution of simulation-based training on army performance

1.6 SIGNIFICANCE OF THE STUDY

The final findings of this study may be useful for the training policymakers of the organization in order to understand and modify the training curriculum adjustment. Moreover, the school management may use the findings of this study in assessing, designing, and implementation of training activities.

In addition, this study may be used as an input for further studies.

1.7 SCOPE OF THE STUDY

This study will focus on Awash Combat Technical School management, instructors, and trainees. Due to the current state of affairs in the country, the research may not be able to find the leaders, instructors, and former trainees as needed.

Although there are various training institutes in the Ethiopian Defense Forces that use simulators, this study focuses primarily on the Awash Combat Technical School.

1.8 LIMITATION OF THE STUDY

Since the study will be conducted at Awash Combat Training School, the results of the study will not be representative of other training centers. On the other hand, since this study will be conducted for the first time in this area using a cross-sectional survey design, it may be necessary to conduct similar studies at different times.

Due to their military confidentiality, some documents and information may not be released.

1.9 DEFINITION OF TERMS / CONCEPTS

The following terms are used in the military sectors frequently. For this study, the researcher used the defence joint training main department military dictionary (1998) for military words definition.

Simulator: it is a program or machine that represents a real-life state.

Human resource: the personnel of an organization, viewed as a significant/ key asset in terms of skills and abilities.

Training: the act of teaching individuals a specific skill or type of behaviour.

Combat Techniques: necessary skill and knowledge for carrying out the military mission.

Crew: a group of individuals involved in a particular kind of task.

Non-commissioned officer /NCO/: Non-commissioned officers typically receive their position of authority by promotion through the enlisted ranks.

Armoured Personnel Carriers /APC/: army vehicle intended to transport personnel and equipment in combat sectors.

Anti-aircraft: or counter-air defence is the battle space response to aerial warfare.

Artillery: a type of heavy military ranged weapons

1.10 ORGANIZATION OF THE RESEARCH

The study began with chapter one which is the introductory part of the research, the next chapter will discuss on simulation based training and development related literature review. The third chapter discusses Research Design and Methodology that the researcher will use. The fourth chapter deals with data presentation and analysis the fifth chapter will contain summary and discussion contents.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Literatures related to the effect of simulation-based training on army performance were assessed in this chapter. Moreover theoretical and empirical reviews discussed under this chapter.

2.1 THEORETICAL RESEARCH

The theoretical review try to focus on the following topics; human resource concepts, training and development, training policy, training process, training design, training methods, simulation-based training, training effectiveness, factors affecting training effectiveness and constructs of performance.

2.1.1 HUMAN RESOURCE CONCEPT

Why do most firms give great attention to Human Resources Development (HRD) tasks? HRD is one of the important functions of human resource management because the knowledge, skill, and ability of human resources play an abundant role in organizational success. Different authors define HRD in different ways. Jones (1980) explained that HRD, as it is the process consider both organizational and personal goals and is implemented in a well-structured and organized manner in other hands Chalofsky and Lincoln (1983), defines HRD as the way how to change employees as an individual or as a group in aligning with organizational success through learning. Swanson (1987) explained that organizational performance depends on the capability of employees in an organization. Mivta (2004) stated that HR is a very important element of all organizations, and it is considered as the fundamental resource of the organization. This resource can ultimately increase the performance of the organization. That is why organizations allocate the relevant amount of training budget on human resources.

Although all the mentioned authors define Human Resource Development in their ways, all agree as human resources have a decisive factor in organizational performance and success.

Even if there are similarities between the Business Company and military human resources management, there are also some important differences, For instance, the long-term impact of

the recruitment in the military organization when compared with non-military organizations. Regularly the military is recruiting only for entry-level, and cannot do it for any other intermediate level. The military promotion is performed based on years in service, previous assignments, educational background, and experience.

Human resource management (HRM) has not only been recognized by the Military but also has integrated into policy and doctrine. Military HRM is the major element of the overall HRM operations and focuses on readiness from both individual and unit perspectives.

The military HRM goal should be connected with the organizational strategy. Moreover, the HRM processes should be developed and implemented in such away. In today's world, HR managers practice different strategies to attract the best talent and retain them. These practices help to make sure that the employees feel good about the organization they work for and add value to the organization.

2.1.2 TRAINING AND DEVELOPMENT

Once accepting Human Resources as an important resource of the business, the next task will be to continuously work on employees' knowledge and skills through Training & Development. The main goal of such training is to improve and step up knowledge, skills, and attitudes towards work-related tasks.

Recruiting qualified employees to the organization does not confirm success. Sometimes there may be a gap between employee knowledge and what the job requires. The gap must be filled through training. Mahapatro (2010) discussed that the routine training task can change the organizations effectiveness by improving working capabilities of employees.

Training & Development has been described in different ways by different writes. Richard Swanson and Holton (2008) expressed training and development as a procedure of systematically emerging work-related knowledge and know-how in people to improve performance. According to Mahapatro (2010) training is a planned and structured activity for enhancing employees' knowledge and skills for a specific goal. It requires systematic procedures for implementation Armstrong (2001) Training and development establish a clear and visible process in any organization through the formal and systematic way.

All the mentioned authors point out that training is a tool not only for the employees but also for the success of the organization, but the basic point is that the training should be conducted strategically. The purpose of the training should be clearly stated, who will be trainees, when, what the results will be for employees and organization in the short and long term, and what kind of training should be given, all these are clearly stated systematically for effective training. Training should not be implemented just because we have a budget or because we want it. Cole (2002) states that training can create high morale of employees; reduce the cost of production, lower turnover, and feelings of personal satisfaction.

2.1.3 TRAINING POLICY

A training and development policy is a collection of training rules that indicate the organization's values and culture. The policy is established based on a set of principles that the organization follows in its overall management and development of the workforce.

It follows a sequence of activities involving the establishment of a training policy, followed by training needs identification, training plans, programs design, implementation, evaluation, and training feedback for further action.

Gerbamn (2000) explained that training needs are developed by incorporating a variety of training techniques as well as other convenient conditions and schedules so that the purpose is to increase the working capacity of the employee.

Cole (2002) explained that all training costs related to training should be within the scope of the organization's purpose and capability. This indicates that aimless training or training that goes beyond the scope is not appropriate. Therefore when any organizations need to develop training need assessment, they should be effective. After the training need analysis has been done, the next step will be establishing training objectives. Training objectives are the future measurable consequences that trainees will achieve after they've finished training. Zaccarelli (1997) described the process of planning training as; developing a training plan, designing a training lesson, selecting the trainer(s), preparing the trainer, implementing the Training Program, and Evaluating the Program.

One of the reasons why training is established for employees is to improve employees' performance on organizational tasks. Macneil, (2001) explained that most organizations

expect more skills and knowledge from their management and workers to perform high levels of performance within limited resources due to continuously occurring uncertainty.

Kenney et al (1992) explain that organizations may have different policies for training along with the level of employment. Michael (1996:55) explained that the training thinking of the organization is expressed through training policies. The training policy in each organization is different, so it prepares employees for the job, and it has a positive effect on the employee's satisfaction with the job. Some institutions' policies may discourage the future of employees, while others may create more optimism for employees, so these policies can have both positive and negative effects on employee performance. Kenny et al (1992) explained that training needs that should be a proportion of turnover are expressed through training policy.

2.1.4 THE TRAINING PROCESS

According to Gordon (1992) Trainings are considered as the deliberate and systematic change of performance over learning actions, activities, and programs to improve the levels of awareness, abilities, capabilities, and skills to perform their work successfully. So training can be described as a planned and systematic determination by management. McGhee et al (1996) expressed formal training as it is a mechanism performed by the management or responsible officials to give chances for the employees for the sake of attaining job-related skills, attitudes, and knowledge.

According to Adeleye, Adegbite, and Aderemi (2014), an effective training program passed through the following five steps:

I. IDENTIFICATION OF NEED ASSESSMENT

It is the first step in developing a training program and identifies and assesses needs for training. If the organization wants to build the training program from scratch it is important to identify the focus area for need assessment.

II. ESTABLISHMENT OF TRAINING OBJECTIVES

Once the need assessment process is performed the next step will be turning the findings into the organization’s training objectives. In this step, the goal of the training will be identified. The objectives of the training will be to solve the gap between employee skills and desired performance/knowledge.

III. **CREATE ACTION PLAN**

The next phase is creating an action plan of training that consists of overall contents of the training activity. What resources are necessary for the training process? Which training methods should be implemented? And other issues regarding the training process will be expressed in detail.

IV. IMPLEMENT TRAINING INITIATIVES

In this phase, the proposed plan will be exercised based on the above 3 phases. Here the Organizations need to decide where training will be delivered in or outside the house. The implementation phase includes the arrangement of training events and resources. Moreover, the training program is then formally launched.

EVALUATE & REVISE TRAINING

At this stage the training program should be appraised to determine whether the training program met training objectives or not. Feedback should be gathered from all stakeholders to determine the effectiveness of the program. Investigating the fetched comment will allow the organization to find the gaps of the programs.

2.1.5 TRAINING DESIGN

Goldstein & Ford (2002) expressed training design as it is the development of a specific plan for each accessible training program to the purpose of training. The training design process refers to a systematic approach to developing training programs. The designing process expected to be organized, and flexible to adjust the corporate needs Noe et al (2008). After training needs have been identified through the different study, then training objectives and significances must be stated. The study is used to accumulate the gaps. Training must be designed to achieve specific and clear objectives. The success should be measurable and has to be in line with the objective.

2.1.6 METHODS OF TRAINING

It is a way or technique for enhancing an employee's knowledge and skill for doing the assigned jobs effectively. The organization may use different methods by considering the nature of the job, size of the organization & workers, types of workers, and cost for selecting

a training method. Sheikh (2008) states that more than ever before employees as individuals or at an organization level must continuously gain training to remain competitive.

Training methods are very important to escape the unnecessary costs that come with training. It can be given either as on- job or off-job training method. Martin, et al (2013) expressed the core training methods as:

Case Study: are those in which an individual or group of people is observed to determine outcomes.

Games-Based Training is interactive training to help employees learn faster.

Internship: an educational institute enters into arrangements with industrial enterprises to provide practical knowledge to its students.

Job Rotation: it is a strategy where employees rotate between jobs at the same business. In this method, employee transfers from one job to another job intentionally at the planned interval to increase employees' understanding and knowhow of all tasks of the business and to test their abilities.

Job shadowing: it is an on-the-job training method that allows an interested employee to follow and closely observe another employee performing the role.

Lecture: it is the way in which the teachers/instructors transfer information to the students in the classroom settings.

Mentoring and Apprenticeship: it is another way to train new employees while they are on the job. Such training type emphases on the enhancement of attitudes of the employees. It is suitable for management staffs.

Program Instruction: it is most effective when some straying from the program isn't detrimental to the company's success.

Role-modelling: Strategy whereby the preceptor, instead of teaching knowledge or concepts.

Role-Play: it is a technique that requires participants to perform a task in a realistic situation simulating "real life.

Stimulus-Based Training: it is a method in which trainees learn on the simulated machine. Such type of training is trained off the job using the simulated machine. It is preferable for risky training.

. Team Training: Gives great emphasis on Team training rather than the individual.

2.1.7 SIMULATION BASED TRAINING

The armed forces have been given a clear constitutional mission to protect their nations from foreign acts of hostility that endanger life and property. To carry out this responsibility, the army has to be ready and capable of reacting. Military training is the main tool to realize this capability.

Military as a profession requires rigorous training that trainees pass through. It is inherently expensive, requires adequate training space, weather and resources, and gaps in training can result in significant material and life-threatening costs. In this regard, simulator training makes it ideal for reducing these problems. Simulators are the most widely used technology in Military organizations for training purposes. Castor (2009) explained that military simulation-based training is appropriate to be implemented to address a team environment. Effective team coordination depends on mutual understanding and behaviour among team members. Well-developed mental models enable individuals can understand information, efficiently and effectively analyse information, as well as make accurate predictions.

Cannon-Bowers, Salas & Converse (1993) Explained how to be effective: describes the role of team members in the group, their unique contributions, how they interact with other team members, who need specific information, and so on. In addition, they need to know when to monitor the behaviour of their team members, when to join and when they are overloaded with team members and change their behaviour to respond to the needs of the team. Group interaction models between team members are especially important for integrated action. Simulation-based learning also happens in different fields, such as engineering, management, and health cares Alfred & Chung, 2011.

2.1.8 TRAINING EFFECIVNESS

Training is the method of helping an individual enchants his efficiency and effectiveness in the workplace by improving and updating his or her professional knowledge. Moreover by

creating abilities relevant to his/her job and cultivating suitable behaviour and attitude towards job and individuals. Training is a time-bound activity. Thus there is a customized specialized discipline of trainers mixing in the field of human activity.

Evaluation of training assesses information on the effect of training activity and value. V. Gautam and S.Gautam, (2011) evaluation provides a reason for training expenditure and creates a rationale for allocation of resources. Evaluation of training is performed during training and after training, at the place of its use in the organization. According to D. Kirkpatrick (1996) training results are grouped under a four-level framework; Reactions – Trainee satisfaction, Learning – Acquisition of knowledge, skills, attitudes, behaviour – Improvement of behaviour on the job and Results – A business result achieved by trainees.

2.1.9 FACTORS AFFECTING TRAINING EFFECTIVNESS

According to Steptoe-Warren (2013) training effectiveness is influenced by the identification of Training needs. The identification of training needs is the first step of the training cycle. If this is inaccurate, inadequate, and misdiagnosed from the beginning, the rest of the training is ineffective. Saks & Haccoun (2007) discussed that psychological states of trainees especially motivation, self-efficacy, perceived control, and the realities of the organizational context affect the training outcomes. Moreover, Tai (2006) expressed that learning styles, cognitive ability, and motivation also influence training effectiveness Individuals who are not motivated to accept the training, for whatever reason, will not be dedicated to the course, therefore wasting time, money, and other organizational resources.

According to Birdi (2005), poor managerial support or unconducive working environment can influence the effectiveness of the training. Haywood (1992) expressed that human resource training policy has been considered as a factor for effective training. This implies that training policy and top management support have a very important role to conduct effective training. Moreover, Driskell (2011) stated that the type of training executed, contents of the training, and trainee know-how also affect the training consequences. So the Success of a training program varies depending on how the training was given, what was the content and who was the trainer. Haslinda & Mahyuddin (2009) expressed that the absence of support from top management and peers, employees' attitudes, job-related factors, and also the lack of training practice are the main factors that affect the effectiveness of training.

2.1.10 CONSTRUCTS OF PERFORMANCE

Various elements can be considered when measuring performance. Armstrong (2000) states that Even if Employee performance is typically evaluated in terms of results, it can also evaluate in terms of behaviour. Kenney et al. (1992) described that employee performance is measured using the organization's performance standards. Such as: productivity is considered as a measure of outputs divided by inputs. The second point is Efficiency it is a measure of how well things are done. If you can get more productions from the same inputs, you are believed to have increased your efficiency. The third element is Effectiveness it is a measure of doing the "right things." The fourth point is Quality it is the features and characteristics of a product or service. The last point is Profitability it is a situation in which an entity is generating a profit.

Past researchers tried to show the constructs of job performance in different ways. Luo, Z et, al (2008) stated that the construct of job performance has been one of the important topics in job performance research. The study examined the construct of job performance among Chinese military soldiers. The results showed that Chinese military soldiers' job performance contained two dimensions of task performance and contextual performance. Furthermore, according to the study military training, task accomplishment and work capability are sub-factors of task performance in the other hand contextual performance involved: helping others, love of learning, promoting organizational benefit, and self-discipline. Finally, the study stated that as task performance and contextual performance contributed independently to overall job performance

2.2 EMPIRICAL REVIEW

Different authors made a research-related on simulation-based training, Samah and Howaida (2016) The Effect of Simulation Training on Nurses and Intern Nursing Students' Skill, Confident and Satisfaction Regarding Neonatal Resuscitation. The research purpose was to identify the effect of simulation training on nurses' and intern nursing students' skills, confidence, and satisfaction regarding neonatal resuscitation.

The findings described in this study suggest that simulation promote skill performance, self-confidence, and satisfaction of nurses and intern student about neonatal resuscitation. The study provides evidence to support the integration of simulation as an effective teaching

strategy help to improve nurses' and intern nursing students‟ confidence and satisfaction in applying clinical skills. Simulation provides nurse educators with the opportunity to provide intern nursing students with realistic learning experiences in a safe environment. The study recommends

1. Training program for an intern nursing student who is in close contact with neonates once every month with reevaluation and feedback after each update is very important.

2. Further research to examine the effect of simulation on learning outcomes to provide more evidence that simulation would be valuable for nurses' development.

3. Reinforcement for psychomotor skills on the bases of simulation in the clinical area for other procedures.

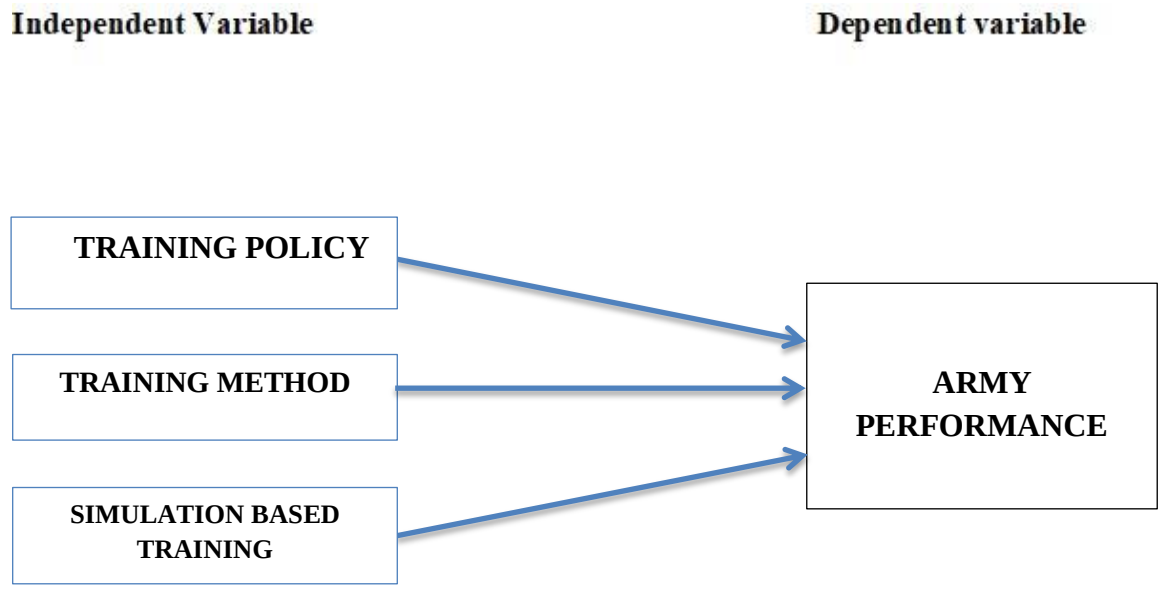
Zahra et al (2021) the Effect of Simulation-based Training on Athletic Performances among Female Basketball Players. The purpose of the study was to scan the effect of simulation-based training on physical fitness and performance indices in female basketball players. The findings stated that simulation-based training in conditioning programs is recommended for enhancing the aerobic, anaerobic, and leg explosive strength of basketball players.

More studies were conducted about simulation-based training and its effect on employee performance. The findings of such studies identified that variables like training policy, training method, and so on are positively and significantly correlated with employee performance. In general, every organization has its expectations from its employees concerning their performance.

2.3 CONCEPTUAL MODEL

This suggested model is self-made and tries to explain the relationship between training policy, method of training, and simulation-based training with army performance thus the study will use three independent variables. There may be a lot of factors that can affect the army's 'performance but the researcher desired to focus on these selected independent variables based on the above theoretical literature and empirical evidence, Therefore, the researcher adopted the model to show that weather training policy, method of training and simulation-based training are exercised properly for enhancing army performance or not. Hence, the following Figure2.1 shows the conceptual framework of this research.

Figure 2.1 conceptual framework



Source: researchers own

2.4 RESEARCH HYPOTHESIS

A hypothesis test is a systematic procedure that is used to indicate whether the result of this study has an acceptable sign to expect that a definite situation is true for the intact population. The researcher established the following hypothesis based on the knowledge of theory and empirical literature studies.

Hypothesis 1 $H_{1:}$ training policy has a significant relation with army performance.
Hypothesis 2 $H_{1:}$ training method has a significant relation with Army performance.
Hypothesis 3 $H_{1:}$ simulation-based training has a significant relation with Army performance.

2.5 SUMMARY OF LITERATURE REVIEW

Various studies described above show that human resources are very important for organizations to remain successful in the marketplace. Moreover, the study shows that increasing human resources skills and knowledge via training is the other important task to be

successful in the market. In this regard, training policies and training methods have their effect on the outcome and should be guided by the appropriate level. In addition, studies so far have shown that simulation-based training helps to increase the capacity of trainees and create a comfortable and safe training environment.

2.6 RESEARCH GAPS

Samah and Howaida (2016) conclusion state that simulation promotes skill performance, self-confidence, and satisfaction of nurses and intern student about neonatal resuscitation. The study provides evidence to support the integration of simulation as an effective teaching strategy to improve nurses' and intern nursing students‟ confidence and satisfaction in applying clinical skills. Simulation provides nurse educators with the opportunity to provide intern nursing students with realistic learning experiences in a safe environment. But the author recommends further research to examine the effect of simulation on learning outcomes to provide more evidence that simulation would be valuable for nurses' development.

Zahra et al (2021) recommend further studies would be necessary to analyze the effect of combining simulation-based training with the performance of basketball-specific skills as well as physical fitness. Concerning the growth of perceived exertion in training sessions, additional studies would be needed to assess the effect of simulation-based training by reducing the overall volume of conditioning exercises The above-mentioned studies indicates that further studies and data collection should be conducted as the results will vary depending on the intended purpose and use of the simulator.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 RESEARCH APPROACH

The study involved both quantitative and qualitative approaches/mixed approaches/. The quantitative approach helps to summarize and analyse collected data using descriptive statistics using SPSS version 20.0 data analysis method. In another hand qualitative approach is used to recognize ideas, thoughts, or experiences. Such a type of study allows the researcher to gather information and data for a detailed understanding of topics.

The reason why this mixed-method implemented was that mixed methods are especially useful in understanding contradictions between quantitative results and qualitative findings. It reflects participants' points of view. Mixed methods give a voice to study participants and ensure those study findings are grounded in participants' experiences.

3.2 RESEARCH DESIGN

For this study, a descriptive and casual research form was implemented. Such type of research allows the researcher to analyse facts and supports to create an in-depth understanding of the research problem. Moreover, it explains the causal relationship between SBT and army performance. A survey will perform in the form of a cross-sectional study in which data will be collected once across a population through a sampling approach. Three respondents for interview were selected via a purposive/judgmental sampling method.

3.3 POPULATION OF THE STUDY

The population of the study was joint training main department and awash combat technique school management, Instructors, and all trainees. These three groups have a direct relation to training activities in the school.

3.4 SAMPLING TECHNIQUE

A stratified random sampling technique was implemented for the study. This type of sampling involves the division of a population into smaller sub-groups known as strata. For this study, the researcher had 3 strata namely management, Instructors, and Trainees.

3.5 SAMPLING SIZE AND SAMPLING PROCEDURE

The school management staff and instructors number may vary from time to time based on the mission given and the number of trainees enrolled. Currently, the number of the population is 288 in total.

There are different approaches for sample size determination. Such as a census for small populations, coping similar studies sample size, using published tables, and using sample size formulas. For this study, the researcher used Yamane's (1967) formula for sampling size determination.

$$n = \frac{N}{1+N(e)^2}$$

Where:

n = targeted sample size of the study

N= the total population of the study

e = the level of precision

1 = designates the probability of the event occurring

$$n = \frac{288}{1+288(0.05)^2} = 167$$

Therefore, 167 respondents used as a sample for this study to gather data through a questionnaire.

Table 3.1 sample size of each stratum

No	Data Sources	Population	sample size
1	Management/staff	117	68
2	Instructors	45	26
3	Trainees	126	73
Total		288	167

3.6 SOURCE OF DATA

Primary data sources such as questionnaires and interviews and secondary data sources such as different documents were used for the sake of getting reliable and relevant information for the study.

3.6.1 PRIMARY DATA

The primary data for this study were collected from selected sample respondents by standard questionnaires /close-ended format / and unstructured interviews conducted for further clarification about the issue.

3.6.2 SECONDARY DATA

Secondary data was collected from the Ethiopian Ministry of National Defence training policy, training curriculums, annual reports on training, relevant books, and tangible internet sources.

3.7 DATA COLLECTION PROCEDURES

The data collection tools were distributed to the sample respondents in hand; moreover, e-mail was used for those who are comfortable with using such a platform. Moreover, the researcher was supported by HR staff in distributing the hard copy of the questionnaire to the respondents. Suitable time allocated for trainees to fill the questionnaires intentionally. In another hand for those who had no time or were not comfortable filling out the questionnaire, the researcher conducted phone interviews.

3.8 RESEARCH INSTRUMENT

As stated above this study used questionnaires, interviews, observations as primary data sources, and different documents as secondary data collection instruments.

3.8.1. Questionnaires

The key tool to collect data from management staff, Instructors, and trainees was questionnaires. The questionnaire was prepared based on a Likert five-point rating/level scale (1for strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5 for strongly agree). Moreover,

the data needed for this study was collected via interviews, observations, and secondary sources through reviewing different documents.

3.8.2. Interview

Even if questionnaires are considered as the major data gathering tool, unstructured interview conducted with 03 concerned officials (the respondents' selected using purposive/judgmental method). These respondents have a direct relation with the simulation-based training. More over the training documents and reports have reviewed in order to Support the data collected through interview and questionnaire.

3.9 DATA ANALYSIS METHODE /QUANTITAIVE VS QUALITATIVE /

The data collected from the respondents' represented via coding and tabulation. These data were analysed with the SPSS v 20 tool, and then after the researcher creates descriptive figures like frequencies, and mean. Moreover inferential statistics like Pearson's correlation and simple linear regression were conducted. The regression analysis was conducted to identify the effect of simulation-based training on Army Performance. The data collected through interviews were interpreted in a sentence form. These interviews were conducted to strengthen the information obtained from the open-ended questionnaires.

3.10 VALIDITY AND RELIABILITY

Validity

To validate the instrument and to make it free from bias the researcher tested the validity and reliability of the instrument by giving the opportunity to the experts to evaluate it and undertake the pilot test. This helped the researcher to modify or rearrange the questionnaires accordingly.

Reliability

The reliability of the instrument was tested via Cronbach alpha result for all categories of the questionnaire. A pilot test was conducted for the sake of a reliability test. Based on the pilot test result the necessary correction of the items is done. The principle of measuring the reliability was to check out the dependability and internal consistency of the data.

3.11 PILOT TEST

A pilot test was established to examine the reliability of the data collection instrument and after then to make essential adjustment accordingly. For this study 17 randomly selected instructors, trainees, and officers' responses were used. The pilot test outcome was 0.968. This result interpreted as reliable. Moreover experienced officers' and instructors' interviews took place. Lastly, after modifying the questionnaire the researcher was distributed to the planned targeted sample respondents.

.TABLE 3.2 RELIABILITY STATISTICS

ITEM	Chronback's Alpha
Training policy	0.947
Need assessment	0.903
Trainig desiegn	0.908
Training method	0.924
Sbt	0.946
Army performance	0.936
Factors	0.846

Source :(survey data, 2022)

3.12 ETHICAL CONSIDERATION

The organization assured me that they would fully accept and support this study; moreover, the researcher followed all ethical procedures in every stage of the data collection process. Firstly, the necessary awareness was created for the respondents about the purpose of the study. Moreover their willingness was asked if they were interested in participating by filling out the questionnaire/ interview or not. Confidentiality will be carried out through the entire study.

CHAPTER FOUR

FINDINGS, DATA ANALYSIS AND INTERPETATION

4.1 INTRODUCTION

The chapter demonstrates the results and interpretation of the collected data from sample respondents. The first unit demonstrates the characteristics of sample respondents in terms of military rank, work experience etc. The next unit explain the analysis and interpretation of data that were collected via questionnaires and interviews.

Statistical Package for the Social Sciences (SPSS) version 20 tool was used for descriptive and inferential analysis and presentation. A total of 167 questionnaires were distributed and 165 were collected this means the response rate is 98.8 %. Two of the collected data were discarded due to missing data and the rest 163 valid questioners were collected thus the outcome considered as very good result.

4.2 PERSONAL CHARACTERISTICS OF THE RESPONDENTS

The data collection instrument contains six different items about the personal characteristics of the respondents including military rank and working experience in the army.

TABLE 4.3 PERSONAL CHARACTERISTICS OF THE RESPONDENTS

	characteristics		Freq.	Per.(%)
1	the respondents army gender	Male(M)	150	92.0
		Female(F)	13	8.0
		Total	163	100.0
2	Age of army respondents	>18 and< 24	10	10.5
		>25and< 35	51	27
		>36 and< 45	70	42.9
		>46 and< 55	32	19.6
		Total	163	100.0
3	Marital status of army respondents	Married	114	69.9
		Single Army	49	30.1
		Total	163	100.0
4	Educational background of Army respondents	Masters and above	10	6.2
		First degree	67	41.1
		diploma	70	42.9

		Grade 4 -12	16	9.8
		total	163	100
5	Work experience or army service in years	1-5 year	15	9.2
		6-10 year	27	16.6
		11-15 year	70	42.9
		above 16 year	51	31.3
		Total	163	100.0
6	Military rank/ status	Officer	115	70.6
		NCO	48	29.4
		Total	163	100.0

Source: (Own Survey, 2022)

The above table 4.3 informed us 92% of the respondents were male and the rest 8% were female respondents. The data shows that female participation in the organization is found to be less compared with males.

The majorities of the respondents are from the age of 36 – 45 which is 42.9 % (70) of the total respondents. Most managerial and instructor staff is included under this category. The age group 18-35 is 37.4 % (51) of the total respondents. Most of the trainees are under this category. The age group 46 – 55 is 19.6% (32) of respondents.

The above table 4.3 clarifies that 69.9% (114) of total respondents are married and the rest 30.1% (49) are single. This indicates that majorities of the respondents are married.

When we see the respondents' educational backgrounds 6.1% (10) of the respondent have a master's degree 41.1% (67) have a degree 42.9% (70) have a diploma and the rest 9.8% (16) are under the group of grade 4 – 12. The Majority 84% (137) of the respondents have either diploma or degree. This shows that there is a good academic readiness to facilitate the training program.

According to the above table 4.3, 9.2% (15) of the respondents have work experience between 1 -5. This group relatively has less experience or new soldiers. 16.6% (27) have a military service between 6 -10 years and 42.9% (70) of the respondents have military service experience less than 15 and greater than 11 years of experience. 31.3% of the sample have military service of more than 16 years. According to the data, more than 50% of respondents

have served the institution for more than 11 years. This shows that the training activities in awash combat technique school are conducted by more experienced members.

The rank of the respondents mentioned in table 4.3. 70.6% (115) of the respondents are officers and the rest 29.4% (48) are non-commissioned officers. As indicated above majority of the respondents have served the institution for more than 11 years of work experience. The more the soldiers served the opportunity to be an officer is increase.

4.3 DATA ANALYSIS

4.3.1 DATA ANALYSIS OF TRAINING POLICY

TABLE 4.4 THE SCHOOL TRAINING POLICIES

No	Item	N=163	Freq.	Perc.o9yu	Mean	Standard deviation
1	As a member of an Army I understand the training policy of the school.	SDAG	4	2.5	4.07	0.979
		DAG	8	4.9		
		N	24	14.7		
		AG	63	38.7		
		SAG	64	39.3		
2	The training delivered by awash combat technique school is associated with the strategic objectives of the school.	SDAG	5	3.1	4.02	0.952
		DAG	6	3.7		
		N	24	14.7		
		AG	74	45.4		
		SAG	54	33.1		
3	The army joins the training that matches military sections interest with the alignment of the school objectives.	SDAG	3	1.8	4.02	0.885
		DAG	5	3.1		
		N	29	17.8		
		AG	75	46.0		
		SAG	51	31.3		
4	The school has is SMART training policy (Specific, Measurable, Achievable, Realistic and Timely).	SDAG	3	1.8	4.01	0.903
		DAG	6	3.7		
		N	29	17.8		
		AG	73	44.8		
		SAG	52	31.9		
5	Concerned training officials demand comments before and after the training.	SDAG	2	1.2	4.14	0.881
		DAG	6	3.7		
		N	23	14.1		
		AG	68	41.7		
		SAG	64	39.3		
	Overall Training policy score				4.052	0.920

Source: (own Survey data, 2022)

For this study, respondents were asked to assess the level of agreement about the understanding of the training policy of the awash combat technique school. As described in table 4.4, the majority of the respondent (78%) shows the level of agreement on an understanding of the training policy of awash combat technique school.

Under training policy category for the statement 'The training delivered by awash combat technique school is associated with the strategic objectives of the school', the respondents' reaction indicated that the majority (78.5%) believes training delivered by awash combat technique school is associated with the strategic objectives of the school.

The next item under training policy was 'The army joins the training that matches military sections interest with the alignment of the school objectives' For this statement, 74.3% (126) replied their agreement.

For the statement 'The school training policy of the organization is SMART (Specific, Measurable, Achievable, Realistic and Timely)'. The outcomes shown in the above table 77.9% (127) of the respondents answered agree, 4.9% (8) replied disagreed 17.2% (28) of the respondents remained neutral..

The response reaction for the statement, about gathering of information about the training shown in the above table is 76.7% of agreement. As shown in the above table the overall mean of training policy is 4.05 with a standard deviation of 0.920. This indicates the respondents' agreement on aggregate of the listed items.

The interview conducted with the relevant Officer and instructor shows that Awash Combat Technique School has a training policy that was developed with the participation of all stakeholders. The policy provides a clear structure for training and development activities that leads to achieving organizational goals. Kenney et al, (1972) stated that training policies deliver guidelines for training, and confirm a company's training resources are assigned to predetermined requirements. In this regard training and development activity is one of the most critical areas of the Ethiopian defence force which is why the training policy is carefully monitored by all stakeholders.

4.3.2 ASSESSMENT OF THE TRAINING NEED

TABLE 4.5 NEED ASSESSMENT ITEMS

	Item	N=163	Freq.	percent	Mean	Standard deviation
1	Awash combat technique school properly exercised training needs assessment before the training programs	SDAG	-	-	4.27	0.619
		DAG	-	-		
		N	15	9.2		
		AG	89	54.6		
		SAG	59	36.2		
2	The process of need assessment task is implemented in participatory way	SDAG	-	-	4.30	0.640
		DAG	-	-		
		N	16	9.8		
		AG	82	50.3		
		SAG	65	39.9		
3	The school exercised the selection for trainee's task based on appropriate need assessment.	SDAG	2	1.2	4.27	0.729
		DAG	-	-		
		N	15	9.2		
		AG	81	49.7		
		SAG	65	39.9		
4	Awash combat technique school assesses the trainee's status for training program.	SDAG	-	-	4.34	0.592
		DAG	-	-		
		N	10	6.1		
		AG	87	53.4		
		SAG	66	40.5		
5	The school properly organized the need assessment documents and used when necessary	SDAG	-	-	4.32	0.606
		DAG	-	-		
		N	12	7.4		
		AG	87	53.2		
		SAG	64	39.4		
	Overall need assessment score				4.30	0.6372

Source: - (own Survey data, 2022)

The need assessment task would take place in order to navigate the area where training can be needed. In this regard the respondents answer for the statement 'The need assessment implemented before the training program designed and implemented', 148(90.8%) of the respondents show an agreement on the issue.

For the statement 'the school exercised the selection for trainee's task based on appropriate need assessment, 147(90.2%) of the respondents confirmed their agreement, Responses for the item 3, 'The school exercised the selection for trainee's task based on appropriate need assessment.' is 146(89.6%) of the respondents answered agree. For the statement 'Awash combat technique school assesses the trainee's status for training program', accepted by

93.9% of the respondents. The statement, 'The school properly organized the need assessment documents and used when necessary', agreed by 53.2% of the respondents.

The overall training needs assessment practice mean score and the standard deviation is 4.30 and 0.6372 respectively. Based on the result observed from the table training needs assessments and documentation activities are implemented well in the awash combat technique school.

According to the researcher's interview with the officer and instructor of the school, and based on personal observation from the document most of the training given by the organization has a regular pattern and follow up by all stakeholders. In some cases, unique massive training programs are implemented under the direction of top-level management. That may not be aligned with the need of the department's schedule and need. Moreover, the need assessments are conducted before the beginning of each budget year in a regular manner but sometimes need assessments may be done in between due to the situations.

4.3.3 DESIGNING A TRAINING

TABLE 4.6 TRAINING DESIGNING ITEMS

	Item	N=163	Freq.	Perc.	Mean	Standard deviation
1	Training programs in awash combat technique school are designed based on appropriate assessments. .	SDAG	-	-	3.91	0.670
		DAG	4	2.5		
		N	32	19.6		
		AG	101	62.0		
		SAG	26	16.0		
2	Appropriate information is given for awash combat technique school trainees about the objectives of each training	SDAG	6	3.7	3.81	0.857
		DAG	-	-		
		N	42	25.8		
		AG	86	52.8		
		SAG	29	17.8		
3	Awash combat technique school instructors have adequate knowledge and interconnect well.	SDAG	-	-	3.82	0.772
		DAG	6	3.7		
		N	48	29.4		
		AG	79	48.5		
		SAG	30	18.4		
4	The school gives opportunity for training and development	SDAG	4	2.5	3.84	0.853
		DAG	2	1.2		
		N	44	27.0		
		AG	79	48.5		
		SAG	34	20.9		
	Training design				3.845	0.788

Source: (survey data, 2022)

From the above table responses to the statement, ‘Training programs in awash combat technique school are designed based on appropriate assessments’, based on the data collected from the respondents 78% of the respondents choose either agree or strongly agree on the issue.

Respondents' reaction to the second statement, ‘Appropriate information is given for awash combat technique school trainees about the objectives of each trainings’, the majority (70.6%) of the respondents showed their agreement on the issue.

Responses for the third statement, ‘Awash combat technique school instructors have adequate knowledge and interconnect well’, the majority 66.9% of the respondents choose either agree or strongly agree. This implies that the majority of respondents believe that trainers have sufficient knowledge and communicate well.

For the statement ‘The school gives opportunity for training and development’, the response of the majority respondents (69.4%) indicated that their acceptance on availability of the training opportunity.

The overall Training design mean and the standard deviation is 3.845 and 0.788 respectively. This implies that the overall training design task in the awash combat technique school was agreed upon by a majority of the respondents.

4.3.4 TRAINING METHOD

TABEL4.7. ITEMS OF TRAINING METHOD

No	Item	N=163	frequency	present	Mean	SD
1	The organization practiced different training methods	SDAG	2	1.2	4.04	0.834
		DAG	6	3.7		
		N	23	14.1		
		AG	84	51.5		
		SAG	48	29.4		
2	Appropriate training method is used according to the nature of training and training objective	SDAG	4	2.5	3.93	0.857
		DAG	4	2.5		
		N	30	18.4		
		AG	87	53.4		
		SAG	38	23.3		
3	Appropriate time is given for each training method	SDAG	2	1.2	3.67	0.847
		DAG	13	8.0		
		N	43	26.4		
		AG	84	51.5		

		SAG	21	12.9		
4	The school instructor provided clear guidelines during training activities.	SDAG	-	-	3.82	0.747
		DAG	6	3.7		
		N	45	27.6		
		AG	85	52.1		
		SAG	27	16.6		
5	Awash combat technique school deliver a training that is helpful to enhance army performance.	SDAG	2	1.2	3.93	0.794
		DAG	5	3.1		
		N	30	18.4		
		AG	91	55.8		
		SAG	35	21.5		
6	There is no one best training method for any army training (Reversed)	SDAG	2	1.2	3.98	0.916
		DAG	10	6.1		
		N	28	17.2		
		AG	73	44.8		
		SAG	50	30.7		
	overall Training method score				3.895	0.8325

Source: (survey data, 2022)

There are different types of training approaches that the organization can use. According to DeCauza et al (1996:70) either on or off the job training methods are conducted in most training activities. When we look at army training in awash combat technique school both training methods were conducted.

From the above table 4.7, for the statement 'The organization practiced different training methods', 80.9% of the respondents choose to agreed option. For the statement 'Appropriate training method is used according to the nature of training', the respondent's response described 76.7% of the respondents choose to agreement on the item.

For the statement 'Appropriate time is given for each training method', even if the majority belongs to agree position, More than one-third (35.4%) of the respondents replied with either a neutral or disagree position hence based on the result needs more attention regarding the time given for each training method in order to minimize the gap.

For the item 'The school instructor provided clear guidelines during training activities', 68.7% of the respondents choose to agree option. This implies that Trainees get clear instruction for all activities in awash combat technique school.

For the statement 'Awash combat technique school deliver a training that is helpful to enhance army performance.' the respondents' responses were described 77.3% of their

agreement. So this result indicated that the school delivers a training that is helpful to enhance army performance

For the statement ‘there is no one best training method for any army training’, the majority 73(44.8%) of the respondents choose the position of agreement. According to the response, the respondents do not believe that one training method is best for all training types in awash combat technique school; hence the training method was selected based on the nature of training nature.

The Overall training method means score and the standard deviation are 3.895 and 0.8325 respectively. This implies that the overall training method selection and implementation have acceptance by the respondents. In addition to the questionnaires, the interview was conducted with training officials. They also indicated that different training methods are used in Awash Combat Technique schools according to the nature of the training.

4.3.5 SBT

Table 4.8 SBT ASSESSMENT

No	Item	N=163	frequency	percent	Mean	Standard deviation
1	The simulation based training program is well- structured and organized in awash combat technique school	SDAG	2	1.2	3.71	0.867
		DAG	11	6.7		
		N	47	28.8		
		AG	76	46.6		
		SAG	27	16.6		
2	The army satisfied with simulation based training programs of the school.	SDAG			3.79	0.784
		DAG	7	4.3		
		N	50	30.7		
		AG	77	47.2		
		SAG	29	17.8		
3	SBT is used for selected training courses	SDAG	4	2.5	3.89	0.949
		DAG	10	6.1		
		N	29	17.8		
		AG	77	47.2		
		SAG	43	26.4		
4	Awash combat technique SBT training method minimize un necessary training cost	SDAG	6	3.7	3.82	1.020
		DAG	10	6.1		
		N	36	22.1		
		AG	67	41.1		
		SAG	44	27.0		
5	Simulation based training	SDAG	6	3.7	3.36	1.011

	minimize hardship and risk	DAG	33	20.2		
		N	33	20.2		
		AG	78	47.9		
		SAG	13	8.0		
6	Simulation based training is near to the real situation	SDAG				
		DAG	4	2.5		
		N	23	14.1	4.17	0.756
		AG	78	47.8		
		SAG	58	35.6		
	Overall SBT score				3.79	0.897

Source: (survey data, 2022)

For the statement, 'The simulation based training program is well- structured and organized in awash combat technique school ', 63.2% the respondents found in the position of agree. For the statement 'The army satisfied with simulation based training programs of the school', 65% of the respondents confirmed their satisfaction SBT.

For the statement 'SBT is used for selected training courses', 73.6% of the respondents agreed, this result shows that SBT is implemented for selected training courses in awash combat technique school. Based on the nature of training other training methods are implemented.

From the above table 4.8 for the statement 'Awash combat technique SBT training method minimize un necessary training cost', according to the collected data68.1% of the respondents believe that SBT method minimizes unnecessary training costs.

From the above table 4.8 for the statement 'Simulation-based training minimizes hardship and risk', According to the response, the 44.1% of the respondents replied either neutral or disagree so it needs improvements.

For the statement 'Simulation-based training is near to the real situation', the majority 83.7% of the respondents choose the position of agreement. this tells us SBT can represent the real situation and accepted by the trainees, instructors and officers.

The overall SBT score of mean and standard deviation is 3.79 and 0.897 respectively. This implies that the overall SBT items are agreed by the respondents; particularly the statement 'Simulation-based training is near to the real situation' is scored the highest mean value of 4.17 and 83.7% of the respondents found the agreed position. On the other hand, the item Simulation-based training minimizes hardship and risk has gotten fewer acceptances relative

to the other items. Based on the interview conducted with concerned members about this item, some trainees and staffs feeling was all the training activities should be completed under SBT.

4.3.6ARMY PERFORMANCE

Table 4.9 ARMY PERFORMANCE ASSESSMENT

No	Item	N=163	frequency	percent	Mean	Standard deviation
1	Simulator based training is important to creates better understanding on technical skills and enhance army performance	SDAG	4	2.5	3.84	0.853
		DAG	6	3.7		
		N	32	19.6		
		AG	91	55.8		
		SAG	30	18.4		
2	I am more committed towards my task after receiving SBT training	SDAG	8	4.9	3.86	0.993
		DAG	4	2.5		
		N	33	20.2		
		AG	76	46.6		
		SAG	42	25.8		
3	Simulation based training helps instructors to support the trainee by understanding the skill gap of the trainees	SDAG	4	2.5	3.70	0.890
		DAG	9	5.5		
		N	45	27.6		
		AG	79	48.5		
		SAG	26	16.0		
4	Simulation based training increase army performance when performing live training	SDAG	6	3.7	3.81	0.933
		DAG	5	3.1		
		N	38	23.3		
		AG	79	48.5		
		SAG	35	21.5		
5	Army job satisfaction increased through SBT training	SDAG	8	4.9	3.71	0.986
		DAG	5	3.1		
		N	46	28.2		
		AG	71	43.6		
		SAG	33	20.2		
	Overall army performance score				3.784	0.931

Source: (survey data, 2022)

For the statement ‘Simulator based training is important to create a better understanding of technical skills and enhance army performance’. The reaction from the respondents’ show that 74.2% of the respondents believe that SBT method can helps to enhance the technical skill of army performance.

For the statement ‘I am more committed towards my task after receiving SBT training’, the data gathered from the respondents indicated that the majority 72.4% of the respondents agreed with the commitment of trainees after receiving SBT training in awash combat technique school.

In table (4.9) ‘Simulation-based training helps instructors to support the trainee by understanding the skill gap of the trainees’, according to the outcomes viewed from the above table, the majority 64.5% of the respondent found the agreed position around one-third of the respondents were either neutral or disagreeing position so it needs some adjustment on the issue.

In the table (4.9), for the statement, ‘Simulation-based training increase army performance when performing live training’ the majority70% of the respondents, agree with the statement ‘Simulation-based training increases army performance when performing live training’. For the statement ‘Army job satisfaction increased through SBT training’, the majority 63.8% of the respondents agreed with the statement.

The aggregate result of army performance trained in SBT training method expressed as 3.78 mean value and standard deviation of 0.93. This indicates that the majority of the respondents agreed on SBT training enhance army performance. Moreover, the interviews were conducted with concerned officials and they expressed that SBT is considered a very necessary training tool to enhance army performance; particularly SBT helps to easily identify the skill gaps of the trainees.

4.3.7 FACTORS THAT INFLUENCE SBT

Table 4.10 FACTORS ASSESSMENT

No	Item	N=163	frequency	percent	Mean	Standard deviation
1	Top managements are committed to facilitate simulation based trainings	SDAG	20	12.3	3.41	1.261
		DAG	21	12.9		
		N	22	13.5		
		AG	72	44.2		
		SAG	28	17.2		
2	Instructors and departments are well skilled and organized to teach	SDAG			3.61	0.918
		DAG	25	15.3		
		N	37	22.7		
		AG	77	47.2		

		SAG	24	14.7		
3	The organization allocate enough budget for simulation based training	SDAG	14	8.6	3.24	1.231
		DAG	37	22.7		
		N	37	22.7		
		AG	46	28.2		
		SAG	29	17.8		
4	Trainees negative feeling about SBT influence the training activity	SDAG	8	4.9	3.35	1.147
		DAG	35	21.5		
		N	41	25.2		
		AG	50	30.7		
		SAG	29	17.8		
	Overall factors score				3.40	1.139

Source: (survey data, 2022)

In table 4.10 for the statement, 'Top managements are committed to facilitating simulation-based training', According to the respondents' response rate majority of the respondents on the position agree but 38.7% of the respondents were either neutral or disagreed position this implies that top management's commitment to SBT needs improvement.

In the table (4.10) for the statement 'Instructors and departments are well skilled and organized to teach', 38% of the respondents replied either neutral or disagreed position so the same enhancement is needed on this issue.

In the table (4.10) for the statement 'The organization allocates enough budgets for simulation-based training', according to the response rate, 54% of the respondents did not agree with issue so this result indicates that there is a need for improvement.

In the table (4.10) for the statement, 'Trainees' negative feeling about SBT influence the training activity, according to the response rate even if more than 48.5% of the respondents believe that the Trainee's negative feelings about SBT influence the training activity this implies that it needs some adjustments that can treat the negative feelings of the trainee before SBT training activity.

The overall Factors of the SBT mean score and the standard deviation are 3.4 and 1.139 respectively. When we look at the result almost the respondent's responses were found almost in the neutral position so this indicates that the listed factors need improvement. The interview conducted with training officials and instructors also confirmed that Top management commitment, and budget allocation after installing the simulators were less.

4.4 INFERENTIAL STATISTICS

4.4.1 CORRELATION ANALYSIS

A correlation analysis was established to analyse the relationship between Army performance and training policy, training method, and simulation-based training in awash combat training school. Under this study Pearson correlation was used to analyse the magnitude and direction of the variables.

The value of r lies between + 1 and -1, positive values of r indicate a positive correlation between the two variables hence, the variables are directly proportional. Whereas negative values of r indicate a negative correlation that is the two variables are inversely proportional. The strength of correlation would interpret through suggestion by Evans (1996) as when the value become between 0.00 - 0.19 it is considered as the relation is very weak, when the outcome result would be 0.2 - 0.39 the relation between variables interpreted as a weak correlation between variables, when the outcome lies between 0.4 - 0.59 it is defined as the variables have a Moderate relation, if the outcome result become between 0.6 - 0.79 the relationship between the variables are interpreted as strong, when the testing result lies between 0.8 - 1.0 it is defined as the variables have a very strong relationship.

TABLE 4.11. CORRELATION OF THE VARIABLES

		TP_AV	SBT_AV	TM_AV	AP_AV
TP_AV	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	163			
SBT_AV	Pearson Correlation	.432**	1		
	Sig. (2-tailed)	.000			
	N	163	163		
TM_AV	Pearson Correlation	.461**	.592**	1	
	Sig. (2-tailed)	.000	.000		
	N	163	163	163	
AP_AV	Pearson Correlation	.644**	.572**	.594**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	163	163	163	163

**. Correlation is significant at the 0.01 level (2-tailed).

Source: (own survey 2022)

TP_AV	Training Policy
SBT_AV	Simulation Based Training
TM_AV	Training Method
AP_AV	Army Performance

As indicated in the above coefficients of correlation table Army performance has a positive and strong correlation with training policy (r ~0.644, p = .000), a positive moderate association with SBT (r~ 0.572, p< 0.05), and a positive moderate association with the Training method, (r ~0.594, p = .000). Moreover, independent variables also have a positive correlation with each other. Therefore, this correlation analysis is in line with the researcher's hypotheses which were stated in chapter 2.

4.4.2 REGRESSION ANALYSIS

Regression models are used to define links between variables by fitting a line to the detected data. Regression allows you to guess how a dependent variable changes as the independent variable.

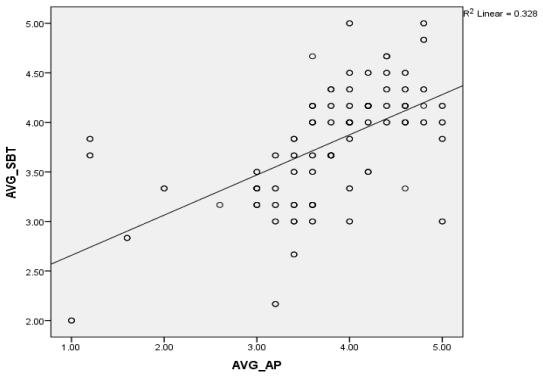
4.4.2.1 ASSUMPTIONS OF LINEAR REGRESSION

Regression analysis is commonly used for modeling the connection between a single dependent variable Y and one or more predictors.

LINEARITY

The linearity assumption may be the most obvious assumption. Chatterjee & Hadi, (2012) stated that the outcome of Y to the predictors/ inputs X is estimated to be linear in the regression factors. The outcomes of the study disclosed that there is a linear relationship between army performance, and the independent or predictor variables/ training policy, training method, and the SBT/. That means for each growth in training policy, training method, and the SBT the dependent variable army performance will increase.

Figure 4.2: Linear relationship between the SBT and army performance.

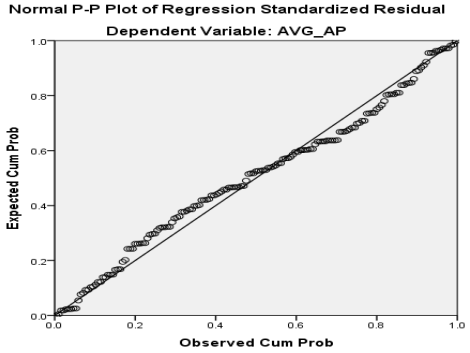


Source: (own survey 2022)

NORMALITY

According to Matt N, Carlos A, and Deson K, (2013), this assumption describes the scattering of the errors for a particular aggregate values of the predictor variables. In order to make valid inferences from your regression, the residuals of the regression should follow a normal distribution. The residuals are simply the error terms, or the differences between the observed value of the dependent variable and the predicted value. If we examine a normal Predicted Probability (P-P) plot, we can determine if the residuals are normally distributed. If they are, they will conform to the diagonal normality line indicated in the plot. The result of the study showed that the assumption met with the result.

Figure 4.3 Normal P_P plot



Source: (own survey 2022)

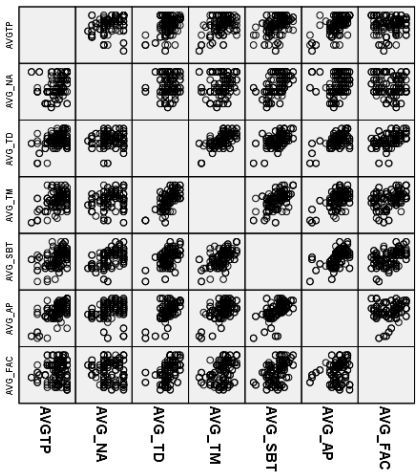
THERE SHOULD BE NO MULTICOLLINEARITY IN THE DATA

Multicollinearity refers to when your predictor variables are highly correlated with each other. This assumption is only relevant for a multiple linear regression, which has multiple predictor variables. This assumption can be tested in two ways: correlation coefficients and variance inflation factor (VIF) values. As indicated in correlation table 4.11 there is no strong correlation between independent variables and each other. This confirmed that there is an absence of multicollinearity**.**

THERE SHOULD BE HOMOSCEDASTICITY AMONG THE DATA

Field, (2006) described in order to fulfil this assumption the residual terms have to remain constant at all predictors' variable levels. Homoscedasticity simply can be tested by graphic representation of the data. In order to check out this assumption the following scatter plot was gained from the collected data using SPSS to realize homoscedasticity is really exist in this study.

Figure 4.4 Homoscedasticity plot



Source: (own survey 2022)

Linear Regression Analysis

Linear regression analysis is conducted, in order to evaluate the effect of SBT on army performance. So, the hypothesis discussed in chapter two is addressed per the regression

analysis result accordingly. So the linear regression analysis was applied to identify the contribution of SBT to performance of an army.

Table 4.12 model summary SBT

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.572[a]	.328	.323	.67654

a. Predictors: (Constant), SBT

Source: researcher surveyed data generated from SPSS
Source: (own survey 2022)

The above model summary table 4.12 tells us R is 0.572 which is a good prediction level and R square is 0.328. The outcomes tell us 32.8 % of the variance of army performance can be described by SBT, Thus, there are other additional variables (67.2%) that are important in explaining Army performance.

Table 4.13 ANOVA SBT

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.908	1	35.908	78.454	.000[b]
	Residual	73.690	161	.458		
	Total	109.599	162			

a. Dependent Variable: AVG_AP

b. Predictors: (Constant), AVG_SBT

Source: (own survey 2022)

The significance value demonstrated in the table used to test the status of the model. Is it a good predictor or not. As shown in table 4.13 the outcome of the significance value is below 0.05. This means that the model is statistically significant.

The overall regression model is significant. F (1,161) =78,454, P<0.05, R2 = 32.8% (that is the regression model is a good to fit the data).

TABLE 4.14 COEFFICIENTS[A] SBT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.724	.349		2.072	.040
	SBT	.808	.091	.572	8.857	.000

a. Dependent Variable: AP

Source: (own survey 2022)

The data analysis presented in Table (4.14) shows the predictors have P-values for the coefficient (beta, β) is significant for SBT (β= 0.808, p = 0.000),

This study also interpreted the regression model using the significance of independent variables considering T-test values at $p < 0.05$ for describing the significance of independent variables as SBT(t = 8,857). The results of the study represented in mathematical equation form as:

$$\mathbf{Y = a + b1X1 + e}$$

Where,

Y= the dependent variable Army performance

a = the constant beta value of SBT

b1 =beta weight for SBT

X1 = independent variables/SBT/

e = the error term

$$\mathbf{Y = 0.724 + 0.81X1 + 0.05}$$

If SBT units increase, the army performance will increase by 0.81 units where the other entire variable remains constant.

Table 4.15 MODEL SUMMARY TP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.644[a]	.415	.411	.63102

a. Predictors: (Constant), TP

Source: (own survey 2022)

The above model summary table 4.15 tells us R is 0.644 which is a good prediction level and R square is 0.415. The outcomes tell us 41.5 % of the variance of army performance can be described by training policy, Thus, there are other additional variables (58.5%) that are important in explaining Army performance.

Table 4.16 ANOVA TP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.490	1	45.490	114.242	.000[b]
	Residual	64.108	161	.398		
	Total	109.599	162			

a. Dependent Variable: AP

b. Predictors: (Constant), TP

Source: (own survey 2022)

The significance value demonstrated in the table used to test the status of the model. Is it a good predictor or not. As shown in table 4.16 the outcome of the significance value is below 0.05. This means that the model is statistically significant.

The overall regression model is significant. F (1,161) =114,242, P<0.05, R2 = 41.5% (that is the regression model is a good to fit the data).

TABLE 4.17 COEFFICIENTS[A] TP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.724	.349		2.072	.040
	AVG_SBT	.808	.091	.572	8.857	.000

a. Dependent Variable: AP

Source: (own survey 2022)

The data analysis presented in Table (4.17) shows the predictors have P-values for the coefficient (beta, β) is significant for SBT (β= 0.808, p = 0.000).

Table 4.18 MODEL SUMMARY TM

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.594[a]	.352	.348	.66403

a. Predictors: (Constant), TM

Source: (own survey 2022)

The above model summary table 4.18 tells us R is 0.594 which is a good prediction level and R square is 0.352. The outcomes tell us 35.2 % of the variance of army performance can be described by training method, Thus, there are other additional variables (64.8%) that are important in explaining Army performance.

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Table 4.19 ANOVA TM

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.609	1	38.609	87.563	.000[b]
	Residual	70.990	161	.441		
	Total	109.599	162			

a. Dependent Variable: AP

b. Predictors: (Constant), TM

Source: (own survey 2022)

The significance value demonstrated in the table used to test the status of the model. Is it a good predictor or not. As shown in table 4.19 the outcome of the significance value is below 0.05. This means that the model is statistically significant.

The overall regression model is significant. F (1,161) =87,563, P<0.05, R2 = 35.2% (that is the regression model is a good to fit the data).

TABLE 4.20 COEFFICIENTS[A] TM

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.592	.345		1.714	.088
	AVG_TM	.820	.088	.594	9.357	.000

a. Dependent Variable: AVG_AP

Source: (own survey 2022)

The data analysis presented in Table (4.20) shows the predictors have P-values for the coefficient (beta, β) is significant for SBT (β= 0.820, p = 0.000).

4.5 HYPOTHESIS TESTING RESULT

The researcher established the following three hypotheses:

H1: training policy has a significant relation with army performance

Ho: training policy has no significant relation to army performance

The awash combat technique school “training policy” sig. value is 0.161, p= 0.001, Based on this outcome the study reject the null hypothesis and described as there is a positive significant connection between army performance and training policy of the school.

H1: training method has a significant relation with army performance

Ho: training method has no significant relation with army performance

The awash combat technique school “training method” sig. value is 0.194, p= 0.009, Based on this outcome the study reject the null hypothesis and described as there is a positive significant connection between army performance and training method of the school.

H1: SBT has a significant relation with army performance

Ho: SBT has no significant relation with army performance

The sig. level for the variable “SBT” is 0.409 p=0.000, which is less than our alpha level of 0.01. So, we reject the null hypothesis and conclude that there is a positive significant relationship between this variable and army performance.

The awash combat technique school “SBT” sig. value is 0.409, p= 0.001, Based on this outcome the study reject the null hypothesis and described as there is a positive significant connection between army performance and SBT of the school.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY OF THE FINDINGS

The specific objectives of this study were to assess how simulation-based training is implemented in awash combat training school, to identify factors that influence simulation-based training, and to identify the contribution of simulation-based training on army performance. To realize these goals both quantitative and qualitative approaches were used. Moreover, the researcher generated different descriptive and inferential statics based on the collected data.

The research questions assessed in this study were:

1. What looks like the implementation of simulation-based training in Awash Combat Technique School?

2. What factors affect simulation-based training in Awash Combat Technique School?

3. What is the effect of simulation-based training on army performance in Awash Combat Technique School?

Based on the study conducted the following major finding were observed. For the first research question regarding training practice and policy: correlation and regression analysis was conducted to analyse the effect of training practice and policy on army performance. The result of the study shows that the mean score of training policy, needs assessment, training design, and training methods are 4.05, 4.30, 3.85, and 3.89 respectively with a standard deviation of 0.920, 0.637, 788, and 0.832. When we see the overall training practices mean score of 4.02 with a standard deviation of 0.794.

- This indicates that the training practice, training need assessments, and documentation activities in awash combat technique school observed as agree with the current implementation.

- The need assessments are conducted before the beginning of each budget year in a regular manner but sometimes need assessments may be done in between due to the situations. Training designs are conducted in accordance with the assessed need in the school as well.

- On/off the job training methods are exercised in Awash Combat Technique schools according to the nature of the training. The result collected from respondents shows that the school members have accepted the selection of training methods.

- Training method's mean score and the standard deviation are 3.89, and 0.832 respectively. The coefficients of correlation indicated that Training method has a positive moderate association with the Army performance, ($r \sim 0.594$, $p = .000$), and also have a positive correlation with other independent variables. Therefore Training method has positive effects on army performance.

  The coefficients of correlation indicated that training policy has a positive and strong correlation with Army performance ($r \sim 0.644$, $p = .000$), and training policy also has a positive correlation with other independent variables. Therefore training policy has positive effects on army performance.

The findings of research question number 2, what factors affect simulation-based training in Awash Combat Technique School? Are as follows:

- The overall Factors of the SBT mean score and the standard deviation are 3.4 and 1.139 respectively. When we look at the result the respondent’s responses were around in the neutral position (3.4 mean score) so this indicates that the listed factors need improvement.

- More than half (51.6%) of the respondents believe that the trainees' negative feelings about SBT influence the training activity this implies that it needs adjustments that can treat the negative feelings of the trainee before the SBT training activity.

- The interview conducted with training official and instructor also confirmed that Top management played their own role to modernize the training institution but

their commitment, and budget allocation after installing the simulators were not up to the level of their expectations.

- The coefficients of correlation indicated that factors of SBT has a positive week association with Army performance ($r \sim 0.212$, $p < 0.05$), solving these factors of SBT has positive effects on army performance.

The findings of research question number 3, what is the effect of simulation-based training on army performance in Awash Combat Technique School are as follows:

- The mean score and standard deviation of SBT are 3.79 and 0.897 respectively. This implies that the overall SBT items are agreed upon by the respondents particularly more respondents (83.5%) believe that Simulation-based training can represent the real situation. So that the respondents consider simulators as an important tool for army training.

- The item Simulation-based training minimizes hardship and risk has less agreement score than the others, 44.1% of the respondents neither choose neither agree nor strongly agree. This indicated that there is a tendency to complete every training task with in a simulator. This is in contrast with army training characteristics.

- The coefficients of correlation indicated that Army performance has a positive moderate association with SBT ($r \sim 0.572$, $p < 0.05$), and also has a positive correlation with other independent variables. Therefore SBT has positive effects on army performance.

- The overall army performance mean score and the standard deviation are 3.78 and 0.93 respectively. This indicates that the majority of the respondents agreed on SBT training enhance army performance

- As indicated above the prediction level of each independent variable is different, but the aggregate of these independent variables (training policy, SBT, and training methods), significantly predict the Army's performance.

- A Pearson coefficient outcome indicates that the training policy of the school, SBT, and Training method exercised in the school were positively related to army performance within the range of 0.212 to 0.644. Training policy, SBT, and training methods were correlated with Army performance.

- From the model summary table Simulation based training or the predictor variable is (R2=0.328), the variance in the army performance. This means that 32.8% of the variation in the army performance is accounted for by the SBT.

- From the SBT beta coefficient outcome the predictor have P-value for their coefficient (beta, β). SBT (β = 0.808, p = 0.000). Hence the independent variables SBT positively and significantly contributed to the model.

5.2 CONCLUSIONS

In order to fulfil the general objective of the study basic research objectives and questions were addressed. The following conclusions were pointed out from the study:

- The training policy of awash combat technique school was aligned with the army's performance. The study approved that the need assessment task undertaken before the training programs in a participatory manner. Training methods were selected in accordance with the training objective of the school. The officials asked comments about the training provided.

- Regarding the factors that affect SBT the respondents were not satisfied enough with the issue. The top management's commitment to modernize the training aid tools is accepted but after installing the modern training aid simulators regarding the follow-up activity, budget allocation, and related issues were not as expected level of respondents.

- The Trainees' negative feelings about SBT are observed as it influences the training activity so it needs adjustments that can treat the negative feelings of the trainee before the SBT exercised.

- When we see the effect of SBT, it has a positive effect on army performance. In addition, Since SBT can represent the real situation; it helps to minimize the unnecessary cost of training.

- The organization used different training options like lecture, SBT, group discussion field exercises, etc to train the army. Based on the findings SBT method was observed as it has a positive outcome on army performance. Training policy, SBT, and training method are positively correlated with army performance, hence the study concluded that for every growth in training policy, SBT, and training method, the performance of Army increases.

- Based on the model summary of the linear regressions the study concluded that awash combat technique training school training policy, SBT, and training method have a significant impact in explaining the variance in army performance. .

- Finally, based on this study data analysis result collected from respondents, in addition to minimizing unnecessary training costs and time, the simulation-based training:

    - Gives the opportunity to the instructors to easily understand the trainee's skill gaps, and also the trainees can also preview his / her training activity after the training; so this helps both the instructors and trainees to solve the gap easily.

    - Gives enough time for practice

    - Allows the trainees to practice through different terrain and climates at the same time.

    - minimizes the risk of life and resource

    So these imply that simulation-based training has a positive effect on army performance.

5.3 RECOMMENDATIONS

This study shows a clear connection between SBT and army performance. Based on the conclusion drawn from the study the following recommendations were suggested by the researcher to top level management, departments, and instructors

TOP LEVEL MANAGEMENT

- The researcher observed that the top management was committed to formulate training policy, and updating the training tools with modern simulators. However, in addition to installing the simulators, there is an issue for improvement such as:
    - Allocation of adequate budgets for simulator maintenance and service related tasks.
    - Even if there is a capacity building task for the simulator staffs to some extent still there is lack of Capacity building in accordance with the commissioned simulators.
- Military training requires a great deal of effort, perseverance, teamwork, physical fitness, etc. and every army members have to pass through these processes, thus it needs to develop a clear system to correct the tendency to want all trainings to be given in simulators. The idea that SBT does not decrease hardship and risk comes from this feeling.

INSTRUCTORS/DEPARTMENTS

- Since military training requires a lot of effort and endurance, it is important to create a clear understanding of which training can be provided with a simulator as stated above. Because every required army skill and ability can't be addressed using the SBT method only. This helps to maintain the expectations of the trainee from the SBT method.
- Proper care and attention should be given in order to maintain the negative feelings of trainees on SBT before conducting the training.

5.4 RESEARCH LIMITATION AND AREA OF FURTHER STUDY

5.4.1 LIMITATION OF THE STUDY

Although the study was intended to include members of the armed forces who were undergoing through a simulation-based training as a target population, this could not be achieved in the context of our country. Therefore, the simulator trainees represented in the

study were members of the army trained in the simulator and deployed in and around Addis Ababa only.

5.4.2 SUGGESTION FOR FUTURE RESEARCH

The study concluded a noticeable relationship between SBT and Army performance. However, still, other variables might have an effect on army performance. So it is good opportunity for the other researchers to conduct research in this field in the future.

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ANNEX

AADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

Questionnaire to be filled by respondents

Dear Respondents!

This questionnaire is prepared to gather information for a study entitled "The Effect of simulation based training on army performance in the case of awash combat technique school. The information you are going to offer is very important for this particular study. Your response will be kept confidential and used only for this academic research.

I thank you in advance for your contribution in this survey.

For your any questions or comments, please contact me using the following address

Tel: 0911559303/0984958216, Email- girmahrm2012@gmail.com.

INSTRUCTION

- Writing your name is not necessary.
- Put ''✓'' or ''X '' in the box provided for choose questions

Part I: individual Information of respondents

Instruction: Please tick in the box that corresponding your own character

1. **Gender:** Male ☐ Female ☐
2. **Age /in years/:**

<25 ☐ 25-35 ☐ 36- 45 ☐ 46- 55 ☐ >55 ☐

3. **Academic qualification:**

Grade 4-12 ☐ Diploma ☐ BA Degree ☐ Master Degree and above ☐

4. **Work Experience at the organization (Experience):**

1 - 5 years ☐ 6- 10 years ☐ 11 –15years ☐ above 16 years ☐

5. **Rank**:: Officer ☐ NCO ☐
6. **Martial status**: married ☐ single ☐ Divorced ☐

Part II

Instruction: Please indicate the extent to which you either agree or disagree with the following statements by using a **tick mark** √ in the appropriate column to the right side where:

1= strongly disagree 2=Disagree 3=Neutral 4=Agree 5=strongly agree

No	**Descriptions**	**Rating Scale**				
		SDA 1	**DA 2**	**N 3**	**A 4**	**SA 5**
1	**Training policy and practice**					
1.1	As a member of an Army I understand the training policy of the awash combat technique school.					
1.2	The training delivered by awash combat technique school is associated with the strategic objectives of the school					
1.3	The army joins the training that matches military sections interest with the alignment of the school objectives.					
1.4	The school has is SMART training policy (Specific, Measurable, Achievable, Realistic and Timely).					
1.5	Concerned training officials demand comments before and after the training.					
2	**Need assessment**	**SDA 1**	**DA 2**	**N 3**	**A 4**	**SA 5**
2.1	Awash combat technique school properly exercised training needs assessment before the training programs					
2.2	The process of need assessment task in awash combat technique school is implemented in participatory way					
2.3	The school exercised the selection for trainee's task based on appropriate need assessment.					
2.4	Awash combat technique school assesses the trainee's status for training program					

2.5	The school properly organized the need assessment documents and used when necessary					
3	**Training design**	**SDA 1**	**DA 2**	**N 3**	**A 4**	**SA 5**
3.1	Training programs in awash combat technique school are designed based on appropriate assessments.					
3.2	Appropriate information is given for awash combat technique school trainees about the objectives of each training					
3.3	Awash combat technique school instructors have adequate knowledge and interconnect well.					
3.4	The school gives opportunity for training and development					
4	**Training method**	**SDA 1**	**DA 2**	**N 3**	**A 4**	**SA 5**
4.1	Awash combat technique school practiced different training methods					
4.2	Appropriate training method is used in the school according to the nature of training and training objective					
4.3	Awash combat technique school arrange appropriate time for each training method					
4.4	The school instructor provided clear guidelines during training activities.					
4.5	Awash combat technique school deliver a training that is helpful to enhance army performance.					
4.6	There is one best training method for any army training					
5	**Simulator Based Training**	**SDA 1**	**DA 2**	**N 3**	**A 4**	**SA 5**
5.1	The simulation based training program is well-structured and organized in awash combat technique school					
5.2	The army satisfied with the overall aspect of the simulation based training programs at the organization.					
5.3	SBT is used for selected training courses					

5.4	SBT minimize un necessary training cost					
5.5	Simulation based training minimize hardship and risk					
5.6	Simulation based training is near to the real situation					
6	**Army performance**	**SDA 1**	**DA 2**	**N 3**	**A 4**	**SA 5**
6.1	Simulator based training is important to creates better understanding on technical skills and enhance army performance					
6.2	I am more committed towards my task after receiving SBT training					
6.3	SBT helps instructors to support the trainee by understanding the skill gap of the trainees					
6.4	Simulation based training increase army performance when performing live training					
6.5	Army job satisfaction increased through SBT training					
7	**Factors that affect simulation based training**	**SDA 1**	**DA 2**	**N 3**	**A 4**	**SA 5**
7.1	Top managements are committed to facilitate simulation based trainings					
7.2	Instructors and departments are well skilled and organized to teach					
7.3	The organization allocate enough budget for simulation based training					
7.4	Trainees negative feeling about SBT influence the training activity					

INTERVIEW QUESTIONS

1. Do you believe that the organization has a clear training policy?
2. What is the benefit of using simulation based training method for army performance?
3. How do you evaluate simulation based training effectiveness?
4. What are the challenges/factors that influence simulation based training?
5. What are other training methods suitable for army performance?,